

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Philip Morris International Inc. (PMI) is a leading international tobacco company working to deliver a smoke-free future and evolving its portfolio for the long-term to include products outside of the tobacco and nicotine sector. PMI has its executive headquarters in New York, U.S., its primary listing on the New York Stock Exchange (NYSE: PM), and its Operations Center in Lausanne, Switzerland. The company's current product portfolio primarily consists of cigarettes and smoke-free products, including heat-not-burn, vapor, and oral nicotine products, which are sold in markets outside the U.S. In 2021, PMI adjusted net revenues amounted to approximately USD 31.7 billion, of which 29.1% related to the sale of smoke-free products.

PMI's ambition to become a company with a net positive impact on society starts with researching, developing, and commercializing less harmful alternatives to cigarettes for those adults who otherwise would continue to smoke, ultimately allowing us to phase out cigarettes and become a fully smoke-free business. As a next step, we are expanding our offerings to include products that fill critical unmet needs in the wellness and healthcare space. To achieve our purpose, a radical transformation of our business is required. Sustainability stands at the core of our corporate strategy and helps address some of the challenges resulting from the transition, minimizing negative externalities associated with our products, operations, and value chain, while spurring innovation and better positioning the company for success over the long haul.

Our approach to sustainability focuses on developing strategies that can successfully address the environmental, social, and governance topics identified as a priority by our sustainability materiality assessment. From an environmental standpoint, we focus on reducing post-consumer waste from our products, tackling climate change, and preserving nature.

Engagement beyond our own operations—in particular in our supply chain—is key, as this is where a significant portion of our sustainability impacts occurs. We are working with business partners to proactively identify, manage, and reduce risks, and create shared value.

Our business has a significant, global supply chain organized in two main streams: direct spend focused on materials used in the manufacture of our finished products (e.g., tobacco leaf, packaging materials, electronic devices and accessories) and indirect spend focused on goods and services necessary to operate our business.

The description above is a summary and is qualified in its entirety by reference to the full text of PMI's Annual Report on Form 10-K for the year ended 2021, 2022 Proxy Statement dated March 24, 2022 filed with the U.S. Securities and Exchange Commission on the same date, and the full text of PMI's Integrated Report 2021. Certain terms, definitions and explanatory notes, as well as reconciliations of the applicable non-GAAP financial measures, are set forth in the materials referenced above.

In this submission:

- “PMI,” “we,” “us,” and “our” refer to Philip Morris International Inc. and its subsidiaries;
- Trademarks and service marks in this submission are the registered property of, or licensed by, the subsidiaries of PMI and are italicized;
- Aspirational targets and goals set forth in this submission do not constitute financial projections, and achievement of future results is subject to risks, uncertainties, and inaccurate assumptions, as outlined in our forward-looking and cautionary statements on page 252 of PMI Integrated Report 2021;
- Materiality: In this submission and in related communications, the terms “materiality,” “material” and similar terms, when used in the context of economic, environmental, and social topics, are defined in the referenced sustainability standards, and are not meant to correspond to the concept of materiality under the U.S. securities laws and/or disclosures required by the US Securities and Exchange Commission.
- Unless otherwise indicated, the scope of the data in this submission covers our operations worldwide for the full calendar year 2021 or reflects the status as of December 31, 2021. Where not specified, data come from PMI financials, non-financials, or estimates. Unless explicitly stated, the data and information in this submission do not incorporate wellness and healthcare acquisitions made by PMI during 2021 of Fertin Pharma A/S, Vectura Group plc., and OtiTopic, Inc., which together represented 0.3 percent of PMI's total reported net revenues in 2021.

W-FB0.1a

(W-FB0.1a) Which activities in the food, beverage, and tobacco sector does your organization engage in?

Processing/Manufacturing
Distribution

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1 2021	December 31 2021

W0.3

(W0.3) Select the countries/areas in which you operate.

- Argentina
- Brazil
- Canada
- China
- Colombia
- Czechia
- Ecuador
- Germany
- Greece
- India
- Indonesia
- Italy
- Jordan
- Kazakhstan
- Lebanon
- Lithuania
- Malawi
- Malaysia
- Mexico
- Mozambique
- Netherlands
- North Macedonia
- Pakistan
- Philippines
- Poland
- Portugal
- Republic of Korea
- Romania
- Russian Federation
- Senegal
- Serbia
- South Africa
- Spain
- Switzerland
- Thailand
- Turkey
- Ukraine
- United States of America
- Venezuela (Bolivarian Republic of)

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Offices and some minor facilities.	We have excluded offices and finished goods warehouses for which our water footprint is marginal and limited to water access, sanitation, and hygiene services (WASH) for the employees. These exclusions are made to ease reporting burdens for PMI and are in line with CDP's A-list criteria for exclusions related to WASH services. We estimate these sites together represent less than 2% of our overall blue water usage based on a water footprint screening performed in collaboration with an external consultant.
Recent acquisitions	The data and information in this submission do not incorporate wellness and healthcare acquisitions made by PMI during 2021 of Fertin Pharma A/S, Vectura Group plc., and OtiTopic, Inc., which together represented 0.3 percent of PMI's total reported net revenues in 2021. PMI anticipates this data to be fully included in our reporting by 2024.

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	7181721090

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	<p>According to a study we conducted in 2017-2018, our agricultural supply chain, our other direct materials supply chain and our manufacturing represent respectively 53%, 41% and 6% of our blue water footprint (offices and finished goods warehouses excluded). As PMI relies on the availability of sufficient good quality freshwater for both the production of its raw materials and the manufacturing of its products, we have chosen to consider it as "important" in both direct and indirect operations.</p> <p>Indirect: Water is used in PMI's supply chain to grow raw materials. PMI's most critical suppliers in terms of water risks are tobacco growers, as well as paper- and cellulose acetate-based material suppliers. More than half of our purchased tobacco crops are rainfed, the rest require irrigation. PMI expects its indirect dependency on water to decrease in the future. Mitigating negative impacts of such increase will be achieved through close collaboration with our suppliers to promote our Good Agricultural Practices (GAP), our Leaf Water Stewardship Program, and Responsible Sourcing Principles (RSP) programs to optimize the use of freshwater resources.</p> <p>Direct: At our manufacturing sites, high quality freshwater is used as process water (e.g. for the preparation of flavors, liquid products, several stages of tobacco processing), as well as utility water and to provide WASH services to our employees. On average, 47% of water we withdraw is consumed during the manufacturing processes, 53% is discharged and less than 1% goes into our finished products. PMI expects its direct dependency on water to increase in the short to medium term (up to 5 years), as we are transitioning toward smoke-free products which are more water-intensive in their manufacturing processes. To reduce water dependency in the long term, PMI is implementing efficiency initiatives and installing technologies at its factories for recycling and reuse such as reverse osmosis and electrode ionization.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	<p>Direct: The process to manufacture our smoke-free products initially was five times more water-intensive per unit of product than conventional cigarettes and we are improving this ratio overtime thanks to water efficiency initiatives. Our efforts are geared towards improving water efficiency throughout the process by implementing technologies to recycle and reuse water, and using rainwater harvesting for landscape watering. For this reason, we have chosen to consider as "important" in our direct operations. At our manufacturing sites, water is recycled in our wastewater treatment plants and used for several purposes including watering gardens, equipment cleaning and for some production processes where technically possible such as cooling of towers and boilers. PMI expects its dependency on recycled water to have a slight increase in the future. This is related to the expected water needs that PMI will face as it continues its transitioning to smoke-free products, which are more water intensive than combustible products.</p> <p>Indirect: We encourage the adoption of robust water stewardship practices by our tobacco and other direct material suppliers like paper or cellulose acetate. Such practices include the treatment and use of recycled or brackish water as part of their processes, which might include secondary uses of water such as for cleaning and maintenance of equipment, operation of equipment, and others depending on the local context. Reducing freshwater withdrawn by using recycled water improves our direct and supply chain resilience to water scarcity and increases water availability for surrounding communities: therefore, we have given them a rating of "important". Water recycling is gaining importance among our suppliers and we expect this trend to continue increasing in the future. This is linked to increasing water risks faced by suppliers, who have to mitigate them through increased efficiency in the use of water resources.</p>

W-FB1.1a

(W-FB1.1a) Which water-intensive agricultural commodities that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodities	% of revenue dependent on these agricultural commodities	Produced and/or sourced	Please explain
Tobacco	More than 80%	Sourced	<p>100% of PMI's heated tobacco units, cigarettes and other nicotine-containing products require tobacco. We purchase tobacco leaf of various types, grades and styles throughout the world. In 2021 our purchases came from 253,813 farmers directly contracted either by us or by our third-party leaf suppliers in 21 countries. We contracted farmers directly in several countries, including Argentina, Brazil, Italy, Pakistan, and Poland. Some of our main tobacco sourcing countries are Argentina, Brazil, China, Italy, Indonesia (mostly for domestic use in kretek products), Malawi, Mozambique, Philippines and Turkey.</p> <p>In 2021, PMI continued to assess water risks associated with its value chain, as well as to gather water intensity data from the production of its key commodities such as tobacco.</p>

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
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	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	<p>100% of our operational (i.e., factory) sites are monitored for this water aspect that is part of usual facility management for our sites. Flow meters are used as methodology to measure continuously volumes of water withdrawn by source and origin in all our sites. 100% of our factories producing over 3bn cigarette equivalents are ISO14001 certified, helping our sites to demonstrate compliance with current statutory and regulatory requirements associated with water withdrawals. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and audited annually by SGS during onsite verification.</p> <p>We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and 16 factories have been already certified against the AWS Standard by the end of 2021. We have committed to certify all factories by 2025.</p>
Water withdrawals – volumes by source	100%	<p>We monitor 100% of our factories for this water aspect that is part of usual facility management for our sites. Flow meters are used to measure continuously volumes of water withdrawn by source and origin in all our sites. 100% of our factories producing over 3bn cigarette equivalents are ISO14001 certified, helping them to demonstrate compliance with current statutory and regulatory requirements associated with water withdrawals.</p> <p>Monthly aggregated water data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually. We have identified the factories located in water stressed areas through our recent water risk assessment based on the WRI Aqueduct. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and 16 factories have been already certified against the AWS Standard by the end of 2021. We have committed to certify all factories by 2025.</p>
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	<p>In all our factories where water is sourced via the municipal provider, we monitor the quality via the provider's analyses on a monthly or annual basis (depending on the country), with the exception of the smoke-free factories where we perform additional analyses due to supplementary product quality requirements. In all the cases we withdraw water from wells, fresh water sources or in case we store water in water tanks, we monitor closely (up to 3 times a month).</p> <p>We collect up to 30 parameters like hardness, conductivity, metals, suspended solids, Coliforms, pH, salinity, temperature, and chlorine. Most of the analyses are taking place in external accredited laboratories, and we also measure inhouse some parameters like pH.</p>
Water discharges – total volumes	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. PMI uses flow meters to continuously measure discharges and identify volumes by destination in almost half of its sites; when a dedicated monitoring is not technically feasible, PMI measures discharges based on cost and/or invoices of wastewater services. 100% of our factories producing over 3bn cigarette equivalents ISO14001 certified, helping our sites to demonstrate compliance with current statutory and regulatory requirements associated with water discharges. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually. We have also become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and 16 factories have been already certified against the AWS Standard by the end of 2021.</p>
Water discharges – volumes by destination	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. Sites are required to measure discharges with the frequency prescribed by the legislation or on a monthly basis. This data is entered into our EHS data management system, checked quarterly and verified by a third party annually. PMI uses flow meters to continuously measure discharges and identify volumes by destination in almost half of its sites; when a dedicated monitoring is not technically feasible, PMI measures discharges based on cost and/or invoices of wastewater services. 100% of our factories producing over 3bn cigarette equivalents are ISO14001 certified, helping our sites to demonstrate compliance with current statutory and regulatory requirements associated with water discharges.</p>
Water discharges – volumes by treatment method	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites. Sites are required to measure discharges with the frequency prescribed by the legislation or on a monthly basis. This data is entered into our EHS data management system, checked quarterly and verified by a third party annually. PMI uses flow meters to continuously measure discharges and identify volumes by destination in almost half of its sites; when a dedicated monitoring is not technically feasible, PMI measures discharges based on cost and/or invoices of wastewater services. 100% of our factories producing over 3bn cigarette equivalents are ISO14001 certified, helping our sites to demonstrate compliance with current statutory and regulatory requirements associated with water discharges.</p>
Water discharge quality – by standard effluent parameters	100%	<p>We perform chemical analyses on the wastewater in our factories and this activity is part of routine facility management. We sample do following recognized sampling protocols and laboratory analysis in internal, but mostly in external accredited labs, to measure standard effluent parameters. 100% of our factories producing over 3bn cigarette equivalents are ISO14001 certified, helping our sites to demonstrate compliance with current statutory and regulatory requirements. BOD, COD, pH, TSS, phosphorus, nitrogen, coliforms, phenols are only some of the parameters typically controlled, depending always on the final wastewater receptor. The frequency of analyses varies; pH and TSS are often measured continuously with online instruments, while other parameters like COD are measured on average on a monthly basis. As part of our water strategy, we will progressively increase the number of parameters controlled and on-line measurements at all our sites.</p>
Water discharge quality – temperature	100%	<p>As part of our ISO14001 system, we ensure that the wastewater temperature is adequate to the receptor requirements, and to achieve and monitor this in all our sites we follow the most adequate methods.</p> <p>In 70% of our sites wastewater is treated onsite and sometimes discharged in natural receptors like surface or underground water/ soil, or in case the local regulatory framework requires, we measure the temperature in the various treatment stages as well as in the final treated wastewater tanks with online or offline thermometers, usually on a monthly basis.</p> <p>In the remaining sites, we calculate the effluent temperature based on the process water temperature and volume, and this is in line with the temperatures measured on the sites with installed online meters. We ensure that this parameter is controlled annually.</p> <p>Our process water temperature is the same across our factories and has not changed over the years, and our effluent wastewater temperatures are similar to the civil wastewater.</p>
Water consumption – total volume	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is part of usual facility management for our sites. The volume is calculated based on the withdrawal and discharges. 100% of our factories producing over 3bn cigarette equivalents are ISO14001 certified, helping our sites to demonstrate compliance with current statutory and regulatory requirements associated with water consumption. Monthly water aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually.</p>
Water recycled/reused	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect that is part of usual facility management for our sites. We use flow meters to continuously measure the volumes, at the end of the treatment process in our facilities, prior to being reused. 100% of our factories producing over 3bn cigarette equivalents are ISO14001 certified, helping our sites to demonstrate compliance with current statutory and regulatory requirements associated with water recycle/reuse. Monthly water-aggregated data from all sites is entered into our EHS data management system, checked quarterly and verified by a third party annually. Optimizing our osmosis water treatment plants and reusing rejected water are examples of initiatives implemented to reuse water in our factories.</p>
The provision of fully-functioning, safely managed WASH services to all workers	100%	<p>100% of our operational (i.e. factory) sites are monitored for this water aspect and this is considered part of usual facility management for our sites, with measurement being carried out and validated through ISO14001 and ISO 45001 standard in 100% of the sites. Each site uses the potable water measurement method indicated by the local legislation, and as a minimum to meet the Drinking Water Directive 98/83/EC. We use global reporting requirements for water data with a central data collection system for all sites. WASH services in all PMI sites are a minimum PMI requirement, it is integrated into our occupational health and safety management system, according to ISO 45001 standard and it is monitored and controlled through internal, corporate and third-party audits. Each site is being audited against WASH requirements at least annually.</p>

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	3120	Lower	<p>In 2021, total withdrawals decreased by 8% vs. 2020. The decrease was due to the implementation of water saving and water recycling initiatives despite the incremental production of our smoke-free products which initially required 5 times more water per unit of product than for conventional cigarettes.</p> <p>In 2021, PMI implemented several initiatives in the frame of its "Drive for Zero" program, which aims to reduce process losses, including water use and increase water recovery; these measures helped us achieve a decrease on our average water withdrawals from 4.21 m³ in 2020 to 3.91 m³ of water for every million units of product equivalent produced. In the medium term, PMI expects decreases in water withdrawals, as we continue to improve the efficiency of manufacturing process for smoke-free products and to implement our water recycling and reusing strategy. PMI is expecting smoke-free products demand and production to grow over time, which could lead to long-term slow increments in our water withdrawal volumes. Still, this increased water withdrawal demand is expected to be largely offset by the implementation of our water management strategy and efficiency initiatives.</p> <p>As an example of our progress, our smoke-free products factories in Italy and Greece, improved their water efficiency rate by 23 and 8 percent respectively in 2021 versus 2020. Several water-saving initiatives contributed to this water efficiency increase and reduction in water withdrawals, including the reuse of treated wastewater in the boilers and for green areas irrigation, but also changes in the product design, requiring less water withdrawals for its production.</p>
Total discharges	1639	Lower	<p>In 2021, our total discharges decreased by 7% from 1,754 megalitres in 2020. Most of the decrease was due to the new reusing and recycling technologies applied to our new smoke-free product factory production processes; these measures helped us achieve a decrease on our average water discharges from 2.19 m³ in 2020 to 2.06 m³ of water for every million units of product equivalent produced. The process to manufacture our smoke-free products requires approximately 4 to 5 times more water per unit of product than for conventional cigarettes.</p> <p>To mitigate these impacts, our efforts are geared towards improving water efficiency throughout the process by implementing new process designs, reusing or recycling water, using rainwater harvesting and improving Waste Treatment Plan efficiency.</p> <p>We expect medium term (1-5 years) decreases in discharge as we continue to improve the efficiency of manufacturing process for smoke-free products and to implement our water recycling and reusing strategy. PMI is expecting smoke-free products demand and production to grow over time, which could lead to long-term slow increments in our water discharge volumes.</p>
Total consumption	1481	Lower	<p>In 2021 our total consumption decreased by 9% from 1,623 megalitres in 2020. The decrease was driven by water saving and water recycling initiatives despite the incremental production of our smoke-free products which initially required approximately 5 times more water per unit of product than for conventional cigarettes.</p> <p>In 2021, PMI implemented several initiatives to reduce water use and increase water recovery and also to reduce losses; through this our water consumption decreased from 2.02 m³ in 2020 to 1.86 m³ of water for every million units produced. We expect the smoke-free products demand and thus production to grow over time, and we will mitigate these impacts, with our efforts geared towards improving water efficiency throughout the process by implementing new process designs, reusing, recycling water and using rainwater harvesting. In the medium term, PMI expects decreases in water consumption, as we continue to improve the efficiency of the manufacturing process for smoke-free products and to implement our water recycling and reusing strategy. PMI is expecting smoke-free products demand and production to grow over time, which could lead to long-term slow increments in our water consumption volumes. Still, this increased water consumption demand is expected to be offset by the implementation of our water management strategy.</p>

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	26-50	About the same	WRI Aqueduct	<p>PMI uses the Aqueduct Risk Atlas tool to identify manufacturing sites that are facing water risks on an annual basis. As part of this assessment, PMI uses the 'baseline water stress' data sets produced by the World Resources Institute, together with the location of each PMI manufacturing site to detect locations with the highest water stress levels. PMI defines 'water stressed' locations as 'those where baseline water stress is equal or larger than 40%', in line with CDP's recommended threshold for Water Security disclosures using Aqueduct.</p> <p>Once locations with the highest water stress have been identified, PMI assesses the total amount of water that is withdrawn from the relevant sites, compared to the total withdrawals. Through this exercise, PMI identified that 43% of our direct factory water withdrawals are from water stressed areas in 2021 vs. 42% in 2010.</p> <p>The production of smoke-free consumables initially was five times more water-intensive than the manufacturing of combusted cigarettes. While the public health benefits of smoke-free products justify the trade-off of increased water intensity, we are accelerating our efforts to mitigate the increased water demand in the manufacturing process through enhanced efficiency. In 2021, we managed to reduce water withdrawals from 4.21 m³ in 2020 to 3.91 m³ of water for every million units of product equivalent produced.</p>

W-FB1.2e

(W-FB1.2e) For each commodity reported in question W-FB1.1a, do you know the proportion that is produced/sourced from areas with water stress?

Agricultural commodities	The proportion of this commodity produced in areas with water stress is known	The proportion of this commodity sourced from areas with water stress is known	Please explain
Tobacco	Not applicable	Yes	<p>PMI does not grow tobacco, only sources it as a raw material to manufacture products. PMI uses the WRI Aqueduct tool to annually evaluate potential water risks and opportunities in those locations where the company sources tobacco from. As part of this global exercise, PMI defines 'water stressed' areas as those with an overall physical water risk score above 3 and keeps track of the volume of tobacco that is grown and sourced from these areas.</p> <p>PMI complements this global assessment with local water risk assessments (LRA), which involve collaboration with its tobacco suppliers, site visits at tobacco farms to validate findings from the global water risk assessment and refine results at a watershed level using local data and insights from suppliers. Results from LRAs allow PMI to further improve our knowledge of local conditions and the extent to which local risks and opportunities are applicable to farmers in our tobacco supply chain. Between 2018 and 2021 PMI has carried out 31 LRAs covering 28 Tobacco Growing Areas (TGAs).</p> <p>During 2021, PMI carried out 5 LRAs across the Philippines, Turkey, Argentina, USA and Brazil, as well as 3 complementary LRAs for those TGAs that consisted of more than one watershed. Our target is to carry out at least one LRA for 100% of our TGAs by end of 2025, and to update findings every 3 to 5 years depending on the risk profile of the TGA. As of 2021, PMI has completed at least one LRA in 66% of our TGAs and is on track to achieve this target. PMI will continue to undertake LRAs in 2022 to further understand local water risks and opportunities, and to build best practice together with our tobacco suppliers.</p> <p>On top of the LRAs, PMI collects water withdrawal data per TGA and supplier through our annual Environmental Insights survey; the information collected includes multiple metrics such as type of irrigation, average water usage (per ton of tobacco produced and per hectare of tobacco farmed) across all growing stages: seedling, transplanting and field. In 2021, PMI improved its data collection process by providing guidelines and training on irrigation data collection to all our global tobacco suppliers.</p>

W-FB1.2g

(W-FB1.2g) What proportion of the sourced agricultural commodities reported in W-FB1.1a originate from areas with water stress?

Agricultural commodities	% of total agricultural commodity sourced from areas with water stress	Please explain
Tobacco	26-50	<p>The percentage of total tobacco volumes sourced from water stressed areas decreased from 34% in 2020 to 33% in 2021. This figure is annually calculated by using WRI Aqueduct, together with GPS coordinates for each Tobacco Growing Area (TGA) and volumetric data on the amount of tobacco purchased per supplier, per location.</p> <p>PMI uses this information to manage water risks and opportunities across the tobacco supply chain. Findings from this assessment are used to identify water stressed locations where supplier engagement around water issues is needed (e.g. water stress, depletion, variability, groundwater table decline, drought). Together with suppliers, PMI develops specific projects to address local water risks. Examples of these projects include the construction of irrigation ponds in India to mitigate risks related to seasonal variability, as well as the implementation of drip irrigation to reduce water withdrawal and mitigate risks related to competing demand across tobacco farms and other water users in the watershed in Argentina.</p> <p>PMI also uses this information to inform its sourcing strategy. In 2021, PMI started exploring how water stress metrics could be incorporated into the company's sourcing principles. Through this exercise, PMI is assessing the extent, as well as the specific indicators that could be considered to reallocate volumes prioritizing suppliers and/or sourcing countries from an effective water risk management perspective.</p> <p>PMI anticipates that the proportion of tobacco sourced from areas with water stress will remain about the same in the short to medium term (1-5 years) and is going to be progressively reduced in the medium to long term (5-15 years). This expected trend can be explained by two main factors, namely the expansion of smoke-free products in the company's portfolio (which require less tobacco compared to conventional cigarettes) as well as a reallocation of volumes to suppliers and/or sourcing countries that are better positioned in water stewardship related matters.</p>

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	34.05	Much higher	<p>Even if fresh surface water is globally less than 1% of our total withdrawals, we consider it relevant at local level since, whenever possible, we use it to reduce water sourced from municipal water. In 2021, fresh surface water withdrawals increased by 5.28 megalitres vs. 2020, due to the implementation of various projects. In our factory in Switzerland the lake water we use for steam boilers increased the fresh water use by 11% vs. 2020. We increased rainwater catch in Ukraine and Brazil by 4 megalitres in total vs. 2020. By sourcing fresh surface water untreated and treating it in-house (with natural means – filtering process and UV treatment), we reduce the use of drinkable water from the municipality and we do not compete with other catchment users like households.</p> <p>We expect this source to increase slightly in the next 1 to 5 years based on learnings from the AWS certification and the implementation of water harvesting and water pump technologies where feasible.</p>
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	<p>We currently neither use brackish surface water nor seawater and we do not anticipate using it in the next 3 to 5 years. We indeed require higher quality water for our operations as we use mainly water for WASH facilities, landscape watering, and the utilities process. Currently, a third of our factories are reusing treated wastewater, for example, in Greece where treated domestic wastewater is used for irrigation of green areas of the factory.</p> <p>We plan to increase these initiatives in the mid-term (1 to 5 years) as we continue to innovate and increase quality of treated wastewater so it can be reused and allow PMI to continue operating without the use of brackish surface water/ seawater.</p>
Groundwater – renewable	Relevant	997.57	Much lower	<p>Renewable groundwater is relevant to PMI's operations as it represents the second largest source of water for the company's direct operations. Inlet water is currently supplied from two main sources: urban network (67%) of municipalities or private suppliers; and groundwater renewable sources (32%) from wells and aquifers, which are metered and verified annually by external auditors.</p> <p>In 2021, 997.57 megalitres were withdrawn from groundwater sources compared to the 1,133.03 in 2020. The decrease was due to increase of the shares of the fresh surface water sources, as well as the decrease of the total withdrawals, as result to the implemented water saving and water recycling initiatives and the increase of recycled water.</p>
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	<p>We do not currently use non-renewable groundwater and we do not anticipate using it over the next 3 to 5 years. PMI meets its groundwater demands through withdrawals of renewable groundwater and other renewable sources, which are annually verified by external auditors.</p> <p>PMI plans to continue operating without the use of non-renewable groundwater in foreseeable future by increasing initiatives to improve water efficiency, as well as to continue treating and recycling wastewater.</p>
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	<p>Produced or entrained water is not applicable to PMI, and we do not expect it to become relevant over the next 3 to 5 years. This is because PMI's sourcing of raw materials is limited to dry products, so no water enters the organization's boundary as a result of the extraction, processing, or use of any raw material, in line with CDP's guidelines.</p>
Third party sources	Relevant	2088.25	Lower	<p>3rd party sources represent PMI's main source of water. As the company depends on significant amounts of high quality freshwater, this source of water is considered relevant. Water required for production in our factories is currently sourced from urban network (67%) of municipalities or private suppliers; groundwater wells (32%) which are metered and verified annually by external auditors; and remaining 1% is sourced from fresh surface water sources.</p> <p>In 2021, 2,088 megaliters were sourced from third party sources, 6% less than 2020. The decrease was due to the efficiency and reduction initiatives implemented in our factories, despite the incremental production of our smoke-free products.</p> <p>The increased production of smoke-free products may increase withdrawn volumes from third party sources in the mid-term (1 to 5 years). We are implementing new technologies to recycle and reuse water to limit the increase in water withdrawal.</p>

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	315.58	About the same	<p>Discharges to fresh surface water are relevant because they are a significant amount of PMI's total water discharges, and we have to comply with regulation, including water discharges related ones, in all countries where we operate. We discharge around 19% of treated wastewater into surface water disposal. Wastewater is treated both in public and in on-site water treatment plants following applicable national standards and requirements before being discharged into surface water.</p> <p>In 2021 PMI continued to implement new technologies to recycle and reuse water across our operations, which resulted in a 4% reduction in discharges to fresh surface water versus 2020 (327.42 megaliters). This was particularly relevant for our factories in Portugal and Indonesia, where discharges to fresh surface water were reduced by 18% and 5% respectively. 'About the same' was selected as this represents a change smaller than the 5% threshold for significance used in the report.</p>
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	<p>PMI annually conducts onsite audits through a third-party auditor to validate its water data, including discharges by destination. Our operations are not located near brackish surface water or seawater locations. For this reason, we currently neither discharge to brackish surface water nor to seawater, making this a non applicable discharge destination.</p> <p>PMI currently meets its water discharge needs through fresh surface water (19%), groundwater (10%), and third-party destinations (71%). We do not anticipate this water discharge destination to become applicable in the next 3 to 5 years.</p>
Groundwater	Relevant	156.7	Much lower	<p>PMI's overall wastewater discharge to ground water destination is 10%. Wastewater is equally treated between public and onsite wastewater treatment plants. In 2021, groundwater discharges decreased by 25% from 208.16 megalitres in 2020.</p> <p>The reason for this decrease is due mainly to the integration of new technologies for reusing or recycling water to limit the increase in groundwater discharge in our factories. The increase production of smoke-free products, which require more water than conventional combustible products, may also rise discharge volumes in the mid-term (1 to 5 years). PMI will continue to implement new technologies to recycle and reuse water to limit the increase in discharge volumes.</p>
Third-party destinations	Relevant	1166.41	Lower	<p>PMI's overall wastewater discharge to third-party destinations is 71%, which represents the largest discharge destination for the company. In 2021, third-party discharges decreased by 4% from 1,218.65 megalitres in 2020 due mainly to the incorporation of process improvements, reusing or recycling water to limit water discharges. The increase in production of smoke free products, which require more water than combustible cigarette products, may also rise discharge volumes in mid-term (1 to 5 years). PMI will continue to implement new technologies to recycle and reuse water to limit the increase in discharge volumes.</p>

W1.2j

(W1.2) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	638.52	Much lower	31-40	<p>PMI treats discharges up to a tertiary treatment level with two main purposes: to reuse wastewater and optimize water usage as part of our manufacturing operations (where high quality water is needed), and to comply with local requirements from environmental authorities by removing any remaining hazardous constituents that could be found in relevant discharges after a secondary treatment (such as in Greece). PMI treats water up to a tertiary level to remove any potential residues of phosphorus and nitrogen, and to remove potential viruses and bacteria.</p> <p>PMI complies with all the applicable regulatory standards required by the national water authority as relevant to each factory. In line with these requirements, more than one third of our factories are treating wastewater discharges with advanced tertiary methods, as of 2021.</p>
Secondary treatment	Relevant	223.94	Much higher	11-20	PMI complies with all the applicable regulatory standards required by the national water authority. In line with these requirements, PMI treats water at a secondary level to meet relevant chemical oxygen demand levels (COD), and to remove particle and colloidal COD, biodegradable organic matter, phosphates, and ammonia nitrogen. The facilities that process wastewater up to secondary treatment, are connected to the public sewage network.
Primary treatment only	Relevant	152.29	Much higher	11-20	PMI complies with all the applicable regulatory standards required by the national water authority. In line with these requirements, PMI treats water at a primary level to remove total suspended solids, oil and grease. Only 5 factories are limiting the wastewater treatment only to primary treatment. In all cases the water is being further treated in a third-party wastewater treatment plant.
Discharge to the natural environment without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	PMI is required to treat its water discharges to the natural environment to a primary, secondary, or tertiary level depending on the location of our manufacturing plant, type of operations, and applicable national regulations and standards. As we do not discharge untreated water to the natural environment, this category is not applicable. PMI water data including discharges are fully monitored on an annual basis, and results are verified by a third-party auditor.
Discharge to a third party without treatment	Relevant	541.56	Higher	31-40	PMI complies with all the applicable regulatory standards required by the national water authority. In line with these requirements, the factories that are built within industrial parks treat their wastewater at an industrial large-scale wastewater treatment facility.
Other	Relevant	82.38	Much lower	1-10	PMI complies with all the applicable regulatory standards required by the national water authority. In line with these requirements, our two factories in Indonesia pre-treat wastewater before it is discharged onto a third-party wastewater treatment plant.

W1.3

(W1.3) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	3170000000	3120	10160256.4102564	We anticipate our withdrawal efficiency to decrease in the short to medium term (1-5 years) as we continue to expand our portfolio of smoke-free products, and to be progressively reduced in the medium to long term (5-15 years). While public health benefits of smoke-free products justify the trade-off of increased water intensity, we are accelerating our efforts to mitigate the increased water demand during manufacturing. In 2021, we reduced water intensity by 25.7% percent versus 2020.

W-FB1.3

(W-FB1.3) Do you collect/calculate water intensity for each commodity reported in question W-FB1.1a?

Agricultural commodities	Water intensity information for this produced commodity is collected/calculated	Water intensity information for this sourced commodity is collected/calculated	Please explain
Tobacco	Not applicable	Yes	<p>We source tobacco as raw material to manufacture our products. Water intensity is calculated by dividing the total quantity of water (m3) used for irrigation by tobacco farmers supplying tobacco to PMI by total tobacco volume (ton) sourced.</p> <p>The data collection focuses on water consumption at the farm specifically requesting cubic meters of water use per cultivation stage and is managed through a global, annual survey covering the entire geographical scope of our tobacco sourcing. Water use has been calculated: recording the water used during seedbed, transplanting and field stages, and considering the irrigation systems used. Both irrigated and rainfed origins are covered, with the latter contributing marginally with water consumption for seedbed and transplanting.</p> <p>In 2021 we continued to improve our irrigation data collection methodology by providing standardized irrigation data collection forms, guidelines, webinars and trainings on data collection for all types of irrigation to all suppliers across our tobacco supply chain.</p>

W-FB1.3b

(W-FB1.3b) Provide water intensity information for each of the agricultural commodities identified in W-FB1.3 that you source.

Agricultural commodities

Tobacco

Water intensity value (m3)

339

Numerator: Water aspect

Freshwater withdrawals

Denominator

Tons

Comparison with previous reporting year

Higher

Please explain

In 2021, water intensity in our tobacco supply chain increased by 11% vs. 2020. The main factor causing water consumption to increase was seasonal variability; as temperature and air moisture conditions vary outside temporal series standard values, soil water stress conditions increase, requiring farmers to increase irrigation volumes. Another factor influencing this increase was access to higher quality data for the calculations of water intensity; during 2021 PMI provided irrigation data collection guidelines and training to all suppliers in our tobacco value chain and continued to leverage on GIS tools to better represent our tobacco growing areas (TGAs).

PMI uses water intensity, as well as other water-related metrics (e.g. withdrawals by TGA, global water risk assessment, local risk assessment) to identify priority TGAs for the development of water related projects. These metrics are also used to identify the particular needs of tobacco farmers in each TGA, such as maximizing water use efficiency (e.g., rainwater harvesting), collecting and storing stormwater (e.g. irrigation ponds) or to improve water quality by protecting natural ecosystems (e.g. upstream reforestation). An example of the use of this information in 2021 is the deployment of efficiency software to optimize irrigation, together with a change from surge irrigation to drip irrigation with tobacco farmers in Argentina.

We expect water intensity to increase in the short term, as we are recording a continuous increment in risk factors linked to seasonal variability in the tobacco-growing areas where we operate. Still, PMI has a comprehensive water stewardship strategy in place, that will help to reduce water intensity from our tobacco farmers over mid-to long-term. This strategy is centred on an effective identification of risks and opportunities, the implementation of key interventions at relevant TGAs, and the adoption of a landscape approach to protect natural resources and recharge areas.

As part of our strategy, we have set a target of optimizing at least 10 million cubic meters of water (cumulative since 2019) in our tobacco-growing areas by 2030 through dedicated projects that address shared water challenges in the watersheds where we operate. In 2021, 437,913 cubic meters of water were optimized through projects ranging from irrigation efficiencies to rainwater harvesting. These water volume figures were validated by a third party.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for this coverage

The proportion of suppliers who we request to report on their water use, risk, and management is based only on data from our tobacco supply chain. This is because, through our Life Cycle Assessments (LCA), water stress estimation, and water footprints, we have identified our tobacco agricultural supply chain as currently having our largest potential environmental impact. As tobacco farming represent 53% of PMI's water footprint, it is key that we focus on gathering water related information from tobacco farmers. We have therefore prioritized engagement with tobacco leaf suppliers through our Environmental Insights data collection program that addresses 21 countries and covering 100% of our contracted tobacco spend. GAP guidelines for water management practices cover water scarcity, local impacts, water efficiency, and WASH. Our tobacco suppliers are contractually required to comply with the program's requirements, among which includes reporting on several indicators related to irrigation technology, water consumption per irrigation type, and water consumption per field stage.

PMI incentivizes suppliers to report water data by highlighting how access to water metrics is a critical component of an effective water management strategy that allows tobacco farmers to mitigate potential impacts from climate change. As part of this process, PMI builds capacities around water accounting and reporting, and works together with suppliers to identify and report risks and opportunities. Information collected by suppliers is then used to develop location-specific projects to improve water management conditions and mitigate applicable risks. PMI informs its tobacco sourcing strategy with results from risk assessments as well as irrigation consumption data and is exploring how to incorporate it into its sourcing principles; this will help PMI prioritize and allocate volumes to those suppliers which are better water stewards.

Impact of the engagement and measures of success

PMI requires tobacco suppliers to report water consumption figures at farm level for their farmers contracted to supply PMI. PMI collects this data on an annual basis through a dedicated tool, the Environmental Insights survey that focuses on multiple indicators including water withdrawals, type of irrigation system and use of fertilizers. Through Local Risk Assessments, suppliers implement actions to manage water risks such as water stress and water quality, while constantly monitoring indicators related to the farms as well as the watershed in which farms are located. PMI keeps track of suppliers' risk management outcomes cross-referencing points of attention resulting from the LRAs with the annual reporting of the Environmental Insights tool to further engage on continuous improvement of watershed and farms' water performance.

Suppliers are expected to annually improve their performance by demonstrating continuous improvements on their water practices. PMI uses individual supplier scorecard to track annual performance for each indicator and the LRA results to prioritize interventions based on risk. Based on this information, PMI together with suppliers identify and develop projects that meet the needs of the relevant tobacco growing area (TGA) such as maximizing water use efficiency (e.g., rainwater harvesting), collecting and storing stormwater (e.g., irrigation ponds) or to improve water quality by protecting natural ecosystems (e.g., upstream reforestation). Success is measured as the percentage of farmers implementing best practices (captured through the scorecard), which results in the mitigation of water related risks and an increase of farmers resiliency.

Comment

We share and discuss with suppliers and their farmers the relevant baseline conditions, issues and findings of the LRAs they are requested to perform. Engagement with farmers is key to validate assumptions on the ground and collect their feedback on the findings.

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Innovation & collaboration

Details of engagement

Encourage/incentivize innovation to reduce water impacts in products and services

Encourage/incentivize suppliers to work collaboratively with other users in their river basins

Provide training and support on sustainable agriculture practices to improve water stewardship

Educate suppliers about water stewardship and collaboration

Other, please specify (Inclusion of water stewardship and risk management in supplier selection mechanism. Demonstrable progress against water-related targets is incentivized in your supplier relationship management)

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for the coverage of your engagement

53% of our blue water footprint is used to grow tobacco required for our products, 41% is used in the non-tobacco part of our supply chain, and 6% is used in our manufacturing sites. PMI focuses on covering these agricultural suppliers, as they are most critical to our business in terms of the relevance of their products, as well as the implications from being exposed to water risks; these represent 100% of our tobacco suppliers.

Through our GAP program implementation we address water issues within the tobacco supply chain (covering contracted but also other farmers in the markets we source from), collaborating with suppliers on implementing best practices towards generating measurable improvements. PMI supports suppliers to identify and mitigate risks where they operate and seize water opportunities through dedicated trainings for farmers and field technicians aimed at increasing capacity on water resource management at the farm.

PMI has set a target of optimizing at least 10 million cubic meters of water (cumulative since 2019) in our tobacco-growing areas by 2030 through dedicated projects that address shared water challenges in the watersheds where we operate. To achieve this goal, we plan to generate volumetric water benefits through farm- and landscape-level interventions, leveraging our on-the-ground presence in collaboration with our suppliers and local stakeholders.

To complement our global water risk assessment, we routinely engage suppliers through local water assessments, which leverage primary data sources and interviews with stakeholders to gauge both external and internal water risk on the ground. As part of this process, PMI builds capacities amongst suppliers about water stewardship and collaboration and develops location specific projects to mitigate local water risks.

Impact of the engagement and measures of success

Some concrete examples of beneficial outcomes from our engagement strategy include the completion of local water risk assessments (LRAs), our engagement through the Good Agricultural Practices (GAP) program, the development of projects to achieve our 2030 water optimization target, and the provision of WASH access. Since 2018, we have completed 31 local water risk assessments (representing approximately 2/3 of our total tobacco-growing areas), and we aim to cover all tobacco-growing areas (TGAs) by the end of 2025.

In 2021, we conducted on-the-ground water risk assessments in Argentina, Brazil, the Philippines, and Turkey. The outcome of these assessments helped identify the shared water challenges that are a necessary starting point for properly designed risk mitigation initiatives. Through GAP, PMI provides training sessions on best practices to improve water management conditions. The beneficial outcome of GAP is that tobacco supply chains become more resilient to the impacts of climate change, including seasonal variability, drought, floods and other water related issues. In 2021, we partnered with the experts of Bluerisk and Valuing Impact to apply the World Resource Institute's volumetric water benefit accounting (VWBA) methodology to our tobacco supply chain. In 2021, we modified our farmer footprint in Turkey by supporting farmers in switching their previous crops to tobacco, which requires substantially less irrigation water. This change has helped address competing demand for limited water supplies in the water stressed Aegean Region, reducing by more than 300,000 cubic meters the amount of water withdrawn from the local watershed.

PMI measures engagement success differently, depending on the type of engagement activity. For example, success of our LRAs is measured through the achievement of our target (to cover 100% TGAs by 2025). In the case of nature-based solutions, success is measured through project's volumetric contribution towards our 2030 water optimization targets (10 million cubic meters by 2030). The success of our GAP program is measured through the number of farmers participating in the training sessions as well as implementing best water practices. For WASH, success is measured through the achievement of the targets for contracted farmers and worker accommodations: 100% access to basic drinking water by 2025, 100% access to sufficient drinking water quality by 2030, and 100% access to sanitation and hygiene facilities by 2030.

Comment

In 2021, PMI worked with its tobacco suppliers to drill 114 handpump boreholes in Malawi and 55 in Mozambique, building upon the 90 boreholes drilled in Malawi between 2019 to 2020 and the 110 boreholes drilled previously in Mozambique. It is estimated that each borehole in Malawi benefits over 500 people and each borehole in Mozambique benefits more than 1000 people, highlighting the impact of PMI's WASH program.

Type of engagement

Onboarding & compliance

Details of engagement

Requirement to adhere to our code of conduct regarding water stewardship and management

Other, please specify (Supplier due diligence and performance program, Sustainable Transformation Enables Performance (STEP), to achieve supplier compliance with our responsible sourcing principles in the Non-Tobacco (Leaf) supply chain.)

% of suppliers by number

1-25

% of total procurement spend

51-75

Rationale for the coverage of your engagement

All our business partners must comply with our Responsible Sourcing Principles which define expectations both for our suppliers, as well as their suppliers. We validate the adherence to the RSP engaging with them via our Supplier Due Diligence program. In 2021 we enhanced the program partnering with EcoVadis, the most trusted business sustainability ratings and joining the Responsible Business Alliance (RBA), the largest industry coalition dedicated to corporate social responsibility in global supply chains.

The engagement focuses on critical suppliers, that are defined as follows:

Critical Suppliers are those Tier 1 and Tier 2 managed suppliers who manufacture or sell components used in the manufacture of PMI finished products with a minimum yearly spend > \$0.5 million and all Electronics suppliers Tier 1 and Tier 2 who are commercially managed by PMI. All tobacco farmers directly contracted by PMI affiliates or by our third-party tobacco suppliers are considered critical suppliers. Third-party tobacco suppliers are also considered critical suppliers. On top of the RSP, our tobacco suppliers must comply with the Good Agriculture Practices (GAP) and the Agricultural Labor Practices (ALP) codes which are verified through a continuous on the ground monitoring via field technicians.

Impact of the engagement and measures of success

Through this process not only we analyse the status of our supplier's compliance with our Responsible Sourcing Principles, where water resources conservation and pollution, are an integral part but the results of this due diligence might trigger suppliers deep dive sessions to understand the corrective action plans developed to close significant gaps identified. Further on-site audit might be requested if the corrective action plan is not satisfactory. During 2021 we on-boarded suppliers of several procurement categories, allowing us to cover 54% of the total PMI Procurement spend. More specifically we assessed 89% of our direct material suppliers, 69% of our Electronics suppliers and 21% of the Indirect Materials suppliers and other minor categories. For Direct Materials we assessed 87 (group level) Tier 1 suppliers representing 90% of the DIM spend, while we also assessed 100% of our Tier 2 suppliers (Board & Paper suppliers). For our Electronics suppliers the facilities of 3 out of 5 our Tier 1 suppliers (EMS) and 14 Tier 2 suppliers were also evaluated with an on-site audit according to the RBA audit protocol. Overall, 83% of the suppliers assessed scored as equal or above the expected compliance level.

Comment

Critical suppliers go through an assessment based on the spend category they belong to. Compliance with the RSP is achieved with a minimum EcoVadis score of 45/100. Electronics suppliers undergo an on-site audit at all facilities that supply PMI. Compliance with the RSP is achieved with a minimum audit score (Validate Assessment Protocol) of 125/200. Suppliers scoring below the expected level must complete a corrective action plan and proceed to re-assessment until the score is satisfactory.

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

PMI engages with multiple partners in the value chain including consumers, key account customers, external consultants, verification bodies, supplier communities and others. PMI prioritizes engagement with these stakeholders as they can play an active role at helping us achieve a better understanding of our value chain, reducing risks and innovating to achieve our water targets. PMI uses a range of methods to engage customers and partners in the value chain including open dialogue, development of projects, training, materiality assessment, and others depending on the context.

An example of this is our engagement with customers, employees, and other partners to address cigarette butt littering, which causes negative impacts on water and land habitats. In 2021, we teamed with Litterati, the leading anti-littering organization, who collected litter data in more than 50 cities in 40 countries and photographed litter items in various urban environments. Data analyst CARTO then extrapolated the georeferenced data collected locally to provide us with global figures. A deeper analysis of the litter prevalence data revealed insights useful in improving our anti-littering campaigns. Working in collaboration with these partners allowed us to generate detailed litter prevalence maps for cities and countries worldwide that will inform future campaigns.

PMI measures engagement success differently, depending on the stakeholder involved and type of engagement activity. Measures of engagement success can include qualitative indicators such as feedback from supply chain surveys and presentations on water practices (e.g. CDP Supply Chain program), increased customer interest on water issues, quantitative indicators like response rates (e.g. from surveys) and achievement of engagement targets (e.g. number of participants) and other water related targets (e.g. water footprint optimization).

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

Yes, fines, enforcement orders or other penalties but none that are considered as significant

W2.2a

(W2.2a) Provide the total number and financial value of all water-related fines.

Row 1

Total number of fines

8

Total value of fines

45952

% of total facilities/operations associated

10

Number of fines compared to previous reporting year

Higher

Comment

PMI had 8 water related fines in 2021. An example is a provision of one offense in our factory in Portugal related to failure to comply with water resource use permit, as communicated in our 2021 PMI's Integrated Report. As part of PMI's Integrated Report, we only report fines above a threshold of \$10,000; the 8 fines referred to here consider all fines received during the year, including those below this threshold. As part of our operations, we record fines using our Performance Monitoring System according to the ISO 14001 standard (i.e., all factories are certified and need to monitor compliance with all environmental legislation and report any yearly deviations including fines).

W3. Procedures

W-FB3.1

(W-FB3.1) How does your organization identify and classify potential water pollutants associated with its food, beverage, and tobacco sector activities that could have a detrimental impact on water ecosystems or human health?

Although our direct operations use minimal water relative to our whole value chain (6% of total water footprint), we are cognizant of potential water pollutants that may result from our direct processes and supply chain. All of PMI's wastewater is either treated on-site or sent to treatment facilities prior to discharge respecting local legal regulations, limits and other applicable standards. At PMI we have internal standards on the spill prevention and chemical management in order to prevent water pollution from our manufacturing operations. These standards are integrated in all our factories environmental management systems, and their implementation is certified in the frame of the ISO 14001 certification. These standards dictate that all chemicals are assessed before delivery to the premises based on the SDS (Safety Data Sheets), in case these are hazardous, alternative materials are being evaluated. Based on their properties (health & safety hazards and environmental impacts) they are classified as per local legislation and internal assessment (ex. toxicity, water hazards, flammability) and are being registered and monitored. For the ones that are classified hazardous to the environment appropriate technical measures are put in place to prevent accidental release (retention basins, leak detectors, secondary contaminant among others). All employees and contractors handling hazardous materials are systematically trained and appropriate spill kits are provided on the areas, as part of the assessment. Underground storage tanks for hazardous materials are avoided, and can only be approved by exemption. Wastewater generated in our factories is either directed to authorize treatment plants of the industrial zone or municipality or previously treated onsite through biological/physicochemical process. We have developed high corporate technical standards for the design and operations of these wastewater treatment plants, including the parameters to be monitored in each stage of the treatment but also the type and specifications of the measuring instrumentation.

16 factories have been already certified conforming with the AWS Standard by the end of 2021. We have committed to certify all factories by 2025. As we ensure to treat wastewater from direct operations according to all applicable laws, regulations, and standards where PMI operates, we do not expect significant water-related impacts either on humans or ecosystems. However, negative impacts on ecosystems and humans can be caused from the misuse of pesticides and fertilizers in our supply chain. These inputs are used to enhance production, and to protect tobacco crops from pests and diseases however if misused, they can contaminate aquatic systems by surface run-off and leaching, causing negative impacts on aquatic life or fish-eating wildlife, such as depletion of oxygen by eutrophication. Highly Hazardous Pesticides (HHPs) can be considered carcinogenic, mutagenic, and toxic for reproduction. The presence of HHPs residues in water bodies can have a negative effect on humans through direct (e.g. drinking contaminated water) or indirect consumption (e.g. consumption through contaminated fish). To avoid these negative impacts from materializing, PMI requires all those who grow and supply its tobacco to implement Integrated Pest Management (IPM) practices as part of Good Agricultural Practices (GAP) program. PMI's GAP includes a series of principles and measurable standards to be met by all those who grow and supply tobacco to PMI, including the ones related to the use of pesticides and fertilizers such as frequency of use, quantity, and type of pesticide or fertilizer to be applied.

Where the use of synthetic pesticides is necessary, the supplier must take into account environmental and human health risk where there is a choice of different pesticides. Products of World Health Organization (WHO), toxicity class III and higher (the higher the class, the lower the toxicity level) should preferably be used. Toxicity class II should only be used in well-justified cases, and toxicity class I was prohibited since 2018. Suppliers must have a list of recommended pesticides suitable for the local conditions that cover the most common pests and diseases. The list should include low toxicity and pest-specific products and can use local brand names relevant to the active ingredients listed to ensure greater farmer understanding. This list of pesticides should only include those that are registered for use in tobacco in the country. To support the elimination of WHO Tox1 and other Highly Hazardous Pesticides, PMI promotes the use of less hazardous alternative pesticides that include biopesticides such as botanicals, microbials, macrobials and semi chemicals. Tobacco suppliers promote the use of low-toxicity and pest-targeted pesticides and the elimination of preventative treatments, conducting training and other initiatives with their contracted farmer base.

W-FB3.1a

(W-FB3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your food, beverage, and tobacco sector activities.

Potential water pollutant

Pesticides and other agrochemical products

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

Pesticides, also called Crop Protection Agents (CPAs), which are used to protect tobacco crops from pests and diseases, can contaminate aquatic systems by surface run-off and leaching and have an impact on aquatic life and fish-eating wildlife; pesticide residues present in watercourses and groundwater can also have an effect on humans through consumption of fish and shellfish that are contaminated by pesticides. The contamination can be caused by inappropriate management of the pesticide and can have an impact on the ecosystems according to the toxicological characteristics of the active ingredient.

An example from tobacco cultivation is Diamide insecticides, Flubendiamide and Chlorantraniliprole which are used in some geographies to control Lepidoptera pests in tobacco. It has been reported that these insecticides may cause hazard to aquatic life. In order to limit potential impact on water, PMI has imposed for these insecticides MRLs (maximum residue levels) which are lower than those adopted by the industry.

Impacts from potential water pollutant mismanagement could have significant consequences to PMI's tobacco supply chain. In 2018, PMI identified that misuse of pesticides could represent around 5% of PMI's modelled water pollution footprint; PMI confirmed that this estimation remains valid for 2021.

Furthermore, the insecticide methomyl, classified as WHO Toxicity Class I (WHO TOX1), has been completely eliminated from the production of tobacco destined to PMI. Methomyl, used in the past to control budworms and acutely toxic to humans and many aquatic species, has been substituted with less hazardous alternatives such as the biopesticide Bacillus thuringiensis which has no toxicity for aquatic life and human health.

Management procedures

Soil conservation practices

Crop management practices

Sustainable irrigation and drainage management

Fertilizer management

Pesticide management

Substitution of pesticides for less toxic or environmentally hazardous alternatives

Follow regulation standards

Please explain

PMI requests tobacco suppliers to implement PMI's Good Agricultural Practices (GAP) which defines principles and measurable standards to be met by all those who grow and supply tobacco to PMI with the aim of adopting responsible practices related to pesticide use to reduce water pollutant risk. For synthetic pesticides, suppliers must account for environmental and human health risk where there is a choice of pesticides. Products of World Health Organization (WHO), toxicity class III or lower toxicity

classes (higher the class, lower the toxicity level) are preferred. Class II should only be used in well-justified cases, and Class I must not be used at all.

PMI implements a global Integrated Pest Management (IPM) program to reduce usage of unnecessary pesticides (Crop Protection Agents-CPAs), promoting less hazardous alternatives and correct management, including annual trainings. PMI developed tools to support this in collaboration with Centre for Agriculture and Bioscience International (CABI), e.g. the IPM App and a website (updated regularly) with country-specific management factsheets on pests and diseases and IPM and CPA management. The App has reached more than 2400 users and the website had more than 14,000 views in 2021. A global biopesticides and low hazardous CPA database is available to farmers. To limit potential water impact, PMI has set MRLs (lower than those adopted by the industry) for certain insecticides (for example MRLs for Diamide insecticides which are often used to control Lepidoptera pests in tobacco). GAP promotes reduction of the use of unnecessary CPAs and safe disposal or recycling of empty CPA containers to prevent water contamination. These tools plus trainings raise awareness of potential impacts of pesticides and enable PMI to deter their use.

PMI measures success for GAP and IPM programs through specific indicators. E.g., pesticide residues are measured by PMI's Tobacco Lot Integrity program where every packed lot is tested by independent, accredited labs before PMI accepts it. Based on this program, PMI assessed that as of 2018, all sourced tobacco lots have been free from quantifiable levels of residues attributable to the use of WHO TOX1 CPAs, and in 2021 have been free from residues of other HHPs as well. Additional initiatives are in place including the Green Leaf Tobacco Program where tobacco is also sampled at the farm level to measure pesticides residues or identify pesticide presence before it is processed.

Potential water pollutant

Fertilizers

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

Fertilizers are used to improve tobacco yield within PMI's agricultural supply chain; however, they can enter groundwater or watercourses, impacting aquatic ecosystems through eutrophication. PMI considers impacts from mismanagement of fertilizers such as overdosage or improper application related to vulnerable natural areas especially water bodies near to tobacco growing areas to be of a significant magnitude as the use of fertilizers involves all of PMI's suppliers of tobacco, and if not properly managed fertilizers could cause eutrophication of water and pollution. For this reason, all suppliers have to comply with good fertilizer management practices that are part of GAP program.

In 2018, with the support from an external consultant, PMI developed its water footprint model based on the ISO14036. The model considers PMI's direct and indirect operations through a life-cycle approach, incorporating water consumption, depletion and pollution aspects. With this tool PMI identified that fertilizer leaching from tobacco cultivation could represent up to 62% of PMI's modelled water pollution footprint (non-tobacco supply chain represents an additional 33%) and this remains pertinent for 2021.

Management procedures

Soil conservation practices

Crop management practices

Sustainable irrigation and drainage management

Fertilizer management

Calculation of fertilizer intensity data

Follow regulation standards

Please explain

Through its Good Agricultural Practices (GAP) program, PMI promotes a series of practices for suppliers to optimize fertilizer usage and adjust rates to avoid unnecessary applications. PMI encourages soil analysis as a basis for farmers to optimize fertilization to meet soil fertility and crop nutritional requirements. By calculating the soil available nutrients and related deficiencies and matching them with plant uptake needs, an optimized fertilization plan can be designed and implemented, ensuring no excesses to the amount of fertilizers needed by the plant and, therefore, minimizing fertilizer leaching to the water table, avoiding the main source of eutrophication. PMI's GAP principles and standards promote the use of fertilizers with identified sources of origin, with available certificates of analysis (i.e fertilizers should be analysed to determine the amount of specific substances such as cadmium and chloride), and that comply with regulatory standards, where enforced, or with the PMI's internal GAP standards which apply to all our suppliers.

Through GAP, PMI recommends appropriate amounts of fertilizers that can minimize their negative impacts on the environment. PMI also promotes the development of water protection plans that include the implementation of buffer zones next to where fertilizers are utilized, the avoidance of methods and timing of fertilizer application that may result in leaching, the safe handling and storing of fertilizers to prevent contamination of water. PMI measures and evaluates success of these initiatives through a series of targets and indicators within GAP, including the % of farmers implementing best practices as described in the program, which is part of the contractual obligations for suppliers.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Value chain stage

- Direct operations
- Supply chain
- Other stages of the value chain

Coverage

- Full

Risk assessment procedure

- Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

- Annually

How far into the future are risks considered?

- More than 6 years

Type of tools and methods used

- Tools on the market
- International methodologies and standards
- Other

Tools and methods used

- WRI Aqueduct
- Alliance for Water Stewardship Standard
- Life Cycle Assessment
- IPCC Climate Change Projections
- Internal company methods
- External consultants

Contextual issues considered

- Water availability at a basin/catchment level
- Water quality at a basin/catchment level
- Stakeholder conflicts concerning water resources at a basin/catchment level
- Implications of water on your key commodities/raw materials
- Water regulatory frameworks
- Status of ecosystems and habitats
- Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

- Customers
- Employees
- Investors
- Local communities
- NGOs
- Regulators
- Suppliers
- Water utilities at a local level

Comment

From tobacco cultivation to manufacturing, our products require water. Our agricultural supply chain accounts for around half of our water footprint. The second-largest share of our water use (around 40 percent) derives from other sectors of our supply chain—in particular, the processes by which the filters, paper, and packaging materials we source are manufactured. Our direct operations are not particularly water intensive, representing around 5 percent of our water footprint, with fresh water used for manufacturing, sanitation, and other processes. Water is a renewable yet finite resource shared by all. We can help combat water scarcity and advance global health and food security by responsibly managing our impacts on water, especially in water-stressed regions. To become better water stewards, PMI assesses water risks across its direct operations and tobacco supply chain annually.

W3.3b

(W3.3b) Describe your organization’s process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

PMI uses the WRI Aqueduct tool to evaluate potential water risks in our manufacturing sites and tobacco supply chain. For direct operations, we use the baseline water stress datasets, together with our site locations to detect water stressed sites (those where baseline water stress is equal or larger than 40%). We use the AWS standard to go beyond risk identification and water management, towards tackling shared watershed challenges through a science-based approach that improves conditions across the watershed. We use LCAs to better understand the impact of our products across their lifecycle, and to optimize their design, reducing impacts on water as well as other environmental indicators. In our value chain, we use Aqueduct to evaluate risks and opportunities across our tobacco growing areas (TGAs), where ‘water stressed areas’ are defined as those with an overall physical water risk score above 3; results are complemented with a Local Risk Assessment (LRA), which involves external consultants as well as internal company methods. During the LRAs, we carry out site visits to tobacco farms to refine results and identify localized opportunities to mitigate water risks, optimizing water management through local data and insights from suppliers; external consultants build capacities amongst suppliers to carry out the LRAs and validate our methodology and findings. IPCC Climate Change Projections are used to identify potential water risks that could affect operational sites, as well as key supplier assets such as ports and TGAs.

Outcomes of the risk assessment are used to manage risks in priority locations as following: 1) inform our sustainability and sourcing strategies, set objectives and targets, approve budgets for relevant projects; 2) develop interventions at manufacturing sites to optimize consumption, mitigate water risks, and comply with regulation; 3) develop projects to improve irrigation efficiency at the farm level, provide access to WASH or other water related interventions to increase resilience in TGAs; 4) identify water hotspots throughout the lifecycle of our products and optimize their design to reduce their environmental impact. Between 2018 and 2021 PMI has carried out 31 LRAs covering 28 TGAs and has managed to reduce water intensity per million cigarettes from 4.7 to 2.6 cubic meters.

We include the selected contextual issues in our risk assessment for the following reasons: 1) water availability is needed across multiple steps of our manufacturing processes, WASH for employees and stakeholders along the value chain, and for growing raw materials. Lack of water would impact our ability to operate, and our sourcing strategy; 2) high water quality is needed to manufacture our products in line with applicable requirement and regulations (e.g. EU directive 98/83/EC), and to protect our workers health, consumers, farmers, their livelihoods and their farms; 3) stakeholder conflicts concerning water resources, as tobacco farmers can face competition for limited water suppliers (even though tobacco is not particularly water intensive compared to other crops or manufacturing industries); 4) implications of water on our key raw materials, as impacts from water risks can cause supply chain disruptions, altering prices, as well as quality and availability of raw materials, impacting our business; 5) water regulatory frameworks, as PMI needs to understand existing and upcoming regulations, and ensure compliance in all countries where we operate; 6) status of ecosystems and habitats, as these are crucial for the preservation of water related ecosystem services (e.g. provision, regulation, supporting) that are key for our direct and indirect operations; 7) WASH, as PMI can improve existing access conditions particularly in our tobacco value chain.

We include the selected stakeholders in our risk assessment for the following reasons: 1) customers have increasing environmental expectations regarding the products they purchase, failure to respond to their concerns can have a negative impact in our business; 2) employees drive the implementation of our water targets and goals, and cascade them to suppliers; 3) investors have increased concerns regarding water performance, which if unaddressed can translate in financial risks; 4,5) failure to understand the needs of local communities and other water users at a basin/catchment level can result in conflicts over water resources, particularly in water stressed areas; 6) NGOs provide support and additional technical expertise that allows PMI to manage water risks across the value chain; 7) regulators define rules, taxes, regulations and other water requirements that PMI need to comply with in over 29 countries; 8) suppliers are key at developing projects to reduce risks in our value chain, increasing resilience and meeting our water reduction and stewardship goals; 9) water utilities as they provide data and help PMI manage water usage at the facility level.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

PMI evaluates a "substantive impact" (e.g.: financial or strategic impact) based on a variety of factors and quantitative indicators, including but not limited to the potential impact on financial performance as well as other strategic factors that may affect PMI's efforts and/or delivery towards a smoke-free future, ultimately replacing cigarettes with smoke-free products. The impacts reported as substantive strategic or financial impacts are defined as those identified and prioritized by management in our value chain, through key enterprise risks based on four risk dimensions: the impact a risk could have on the organization if it occurs, the likelihood a risk will occur, the velocity with which a risk would affect the organization if it occurs, and the interconnectivity of a risk with other risks, that exceed defined thresholds at the corporate level.

As part of the Company's annual Integrated Risk Assessment (IRA) process, we have in place an extensive risk control program by which we assess the climate change physical risks including the water-related ones. Specifically in our operations, locations with values exceeding \$30 million range are surveyed by engineers from our property insurer, who provide recommendations to us on the magnitude of environmental risks, for example risk of flooding that could cause reduction or disruption in production capacity in specific locations, and the cost of management. Recommendations for risk management are given if the expected reduction in the financial impact of the risk exceeds the cost to comply by a factor of 10 or more. Internally, we focus on recommendations above the \$50 million range as management of identified risks can involve substantial capital expenditure and disruption to operations including our supply chain.

In 2021+ risk forecasting terms, in relation to our tobacco supply chain, we assumed as substantive risks those with a potential impact in excess of \$5 million or a raw material impact in excess of 1000 metric tons of tobacco leaves. This definition is applicable to PMI's agricultural supply chain. For example, in our 2021 water risk assessment in our tobacco growing areas, risks like drought, flooding and cyclones and other severe weather events with a potential impact above \$5 million have been identified in Indonesia, the Philippines and Brazil.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	4	1-25	Annually, our company's risk and opportunity identification and management process covers regulatory, reputational, physical climate, water, geopolitical and market issues. In 2015, we performed a comprehensive Climate Change risk assessment (CCRA) that highlighted risks for cyclone, floods or severe droughts and a list of factories to be considered as of high risk. Our Climate change risks and opportunities assessment was further aligned with the TCFD recommendations. The analysis is updated every year, also including a water risk assessment of physical water risks (water supply, drought, water stress, flood, water quality) through WRI Aqueduct.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Italy	Other, please specify (Samoggia and Reno)
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Number of facilities exposed to water risk

2

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

PMI uses the WRI Aqueduct tool to evaluate potential water risks in our manufacturing sites and tobacco supply chain. For direct operations, we use the baseline water stress datasets, together with our site locations to detect water stressed sites (those where baseline water stress is equal to or larger than 40%). We use the AWS standard to go beyond risk identification and water management, towards tackling shared watershed challenges through a science-based approach that improves conditions across the watershed. We use LCAs to better understand the impact of our products across their lifecycle, and to optimize their design, reducing impacts on water as well as other environmental indicators.

In our value chain, we use Aqueduct to evaluate risks and opportunities across our tobacco growing areas (TGAs), where 'water stressed areas' are defined as those with an overall physical water risk score above 3; results are complemented with a Local Risk Assessment (LRA), which involves external consultants as well as internal company methods. During the LRAs, we carry out site visits to tobacco farms to refine results and identify localized opportunities to mitigate water risks, optimizing water management through local data and insights from suppliers; external consultants build capacities amongst suppliers to carry out the LRAs and validate our methodology and

findings. IPCC Climate Change Projections are used to identify potential water risks that could affect operational sites, as well as key supplier assets such as ports and TGAs such as cyclones, floods, severe drought, and others.

Country/Area & River basin

Indonesia	Other, please specify (Citarum river)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

PMI uses the WRI Aqueduct tool to evaluate potential water risks in our manufacturing sites and tobacco supply chain. For direct operations, we use the baseline water stress datasets, together with our site locations to detect water stressed sites (those where baseline water stress is equal to or larger than 40%). We use the AWS standard to go beyond risk identification and water management, towards tackling shared watershed challenges through a science-based approach that improves conditions across the watershed. We use LCAs to better understand the impact of our products across their lifecycle, and to optimize their design, reducing impacts on water as well as other environmental indicators.

In our value chain, we use Aqueduct to evaluate risks and opportunities across our tobacco growing areas (TGAs), where 'water stressed areas' are defined as those with an overall physical water risk score above 3; results are complemented with a Local Risk Assessment (LRA), which involves external consultants as well as internal company methods. During the LRAs, we carry out site visits to tobacco farms to refine results and identify localized opportunities to mitigate water risks, optimizing water management through local data and insights from suppliers; external consultants build capacities amongst suppliers to carry out the LRAs and validate our methodology and findings. IPCC Climate Change Projections are used to identify potential water risks that could affect operational sites, as well as key supplier assets such as ports and TGAs such as cyclones, floods, severe drought, and others.

Country/Area & River basin

Poland	Wisla
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

PMI uses the WRI Aqueduct tool to evaluate potential water risks in our manufacturing sites and tobacco supply chain. For direct operations, we use the baseline water stress datasets, together with our site locations to detect water stressed sites (those where baseline water stress is equal to or larger than 40%). We use the AWS standard to go beyond risk identification and water management, towards tackling shared watershed challenges through a science-based approach that improves conditions across the watershed. We use LCAs to better understand the impact of our products across their lifecycle, and to optimize their design, reducing impacts on water as well as other environmental indicators.

In our value chain, we use Aqueduct to evaluate risks and opportunities across our tobacco growing areas (TGAs), where 'water stressed areas' are defined as those with an overall physical water risk score above 3; results are complemented with a Local Risk Assessment (LRA), which involves external consultants as well as internal company methods. During the LRAs, we carry out site visits to tobacco farms to refine results and identify localized opportunities to mitigate water risks, optimizing water management through local data and insights from suppliers; external consultants build capacities amongst suppliers to carry out the LRAs and validate our methodology and findings. IPCC Climate Change Projections are used to identify potential water risks that could affect operational sites, as well as key supplier assets such as ports and TGAs such as cyclones, floods, severe drought, and others.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Italy	Other, please specify (Samoggia and Reno)
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Type of risk & Primary risk driver

Chronic physical	Water stress
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Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Water risk and opportunities assessment is undertaken at the site level to understand potential issues with regards to a shared and sustainable management of the water resources, following the AWS protocol and the ISO 14001 standard. At a global level PMI conducted a water risk assessment through the use of WRI Aqueduct and a Climate change risks and opportunities assessment following TCFD recommendations. These assessments aim to identify material risks and opportunities, which includes flood, drought, baseline water stress, water depletion and water quantity limitations risk management and mitigation plans discussed with our insurers and local stake holders. From the risk assessment, PMI identified that its manufacturing facility in Valsamoggia (Italy) is directly exposed to potential disruptions in production capacity due to water stress and drought, as these indicators were identified as 'very high risk' according to results from PMI's risk assessment, estimating one week of water unavailability as a minimum threshold which could cause a potential substantive impact.

In 2021 our smoke-free products manufacturing facility in the Samoggia and Reno river basins was responsible for about 45% of PMI's total production of heated tobacco units (HTUs) and therefore is strategically significant for the business.

Timeframe

4-6 years

Magnitude of potential impact

Medium-high

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

1870000

Potential financial impact figure - maximum (currency)

14990000

Explanation of financial impact

We estimate the relative magnitude at the range of \$1.87 million to \$14.99 million in the medium to long term (4-6 years) for our operations based potential disruptions in production capacity and current production data, as well as per our insurance's estimations, not having experienced yet such an event.

PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials).

These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of interruption days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of interruption days in major event * cost of business interruption per day

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

PMI's response is already underway and has been focused on reducing water dependency on water withdrawals through the implementation of water saving initiatives in our factory. Since 2018, PMI has implemented several water efficiency, reuse, recycling and conservation projects have been implemented in this factory which specifically aim to reduce water consumption and make the site more resilient to increased local water stress.

The expected timeframe of completion of this response is 2025, following our updated sustainability roadmap which includes PMI's targets to optimize water usage across our operations. This timeframe is revised annually as part of our risk assessment process, and adjusted to reflect any changes arising from additional water interventions that are needed to mitigate these risks.

In 2021 the factory in Italy decreased its total water consumption by 22% vs. 2020. More specifically PMI has focused on investing in the following key interventions:

- use reverse osmosis on treated recycled water in boilers and cooling towers;
- Installation of SR-CT for Cooling Tower Water Treatment;
- reuse of treated wastewater in boilers;
- boiler blowdown cooling with re-used water;
- increase potable water use efficiency by implementing water plant saving settings.

In addition to those technical measures the site got certified according to the AWS protocol in 2019, aiming to further assess and mitigate these risks.

Besides our approach to optimize water consumption in our factory, we have safety margins and safety stocks to ensure that any potential negative impact from the identified risks could be adequately compensated through the course of our business-as-usual operations, preventing potential out of stock situations. Such safety stock are calculated based on historic supply and demand, as well as the evaluated risk exposure in a particular market.

Cost of response

3161000

Explanation of cost of response

The cost of response refers to the investment costs for the design and implementation of the initiatives from 2018 to 2021. Specifically, in 2021, PMI implemented several

technologies, aiming to reduce water withdrawals. The cost of response corresponds to the design and implementation of all these:

- use of reject water from Reverse Osmosis systems in cooling towers;
- water usage standardization and setting optimization
- waste water treatment plant water reduction for pump's backwashing
- secondary deodorizing optimization

PMI re-evaluates the need for further investments on an annual basis and updates its budget to manage water related risks in all factories, including in Italy.

Country/Area & River basin

Indonesia	Other, please specify (Citarum)
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Type of risk & Primary risk driver

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)
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Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Results from PMI's water footprint indicate that manufacturing facilities in Indonesia are the company's second most water intensive in terms of fresh water consumption. We conducted a comprehensive Climate Change risk assessment (CCRA) and reviewed water risk due to climate change, for corporate and asset level physical risks and opportunities up to 2025-2030 of PMI and key supplier assets in 2015. We use the WRI Aqueduct and IPCC Climate Change Projections. On an asset level, we conduct environmental risk assessments (ISO14001) to identify material risks and opportunities, which includes flood risk management and mitigation plans discussed with our insurers. Through these assessments we identified the primary risk drivers in our Indonesian operations are flooding and cyclones. Potential impacts from cyclones could cause loss and/or disruption of production in manufacturing plants, warehouses, 3rd party operations, suppliers and ports, which directly impact PMI's operations. In 2021 the indicated facility in Karawang was responsible for the production of around 8% of PMI's total production of cigarettes. We disclose about this facility due to its relevance for the business and the potential impacts that could be caused by floods and cyclones.

Timeframe

4-6 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

470000

Potential financial impact figure - maximum (currency)

3750000

Explanation of financial impact

We estimate the relative magnitude at the range of \$0.47 million to \$3.75 million in medium to long term (4-6 years) for our Indonesian operations based on potential disruptions in production capacity and current production data, as well as per our insurance's estimations, although actual losses due to flood cases remained much below this threshold.

PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials). These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of interruption days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of interruption days in major event * cost of business interruption per day

Primary response to risk

Develop flood emergency plans

Description of response

PMI contracts external providers annually to develop flood emergency plans that mitigate flood and business continuity risks identified from the water risk assessment. External providers carry out additional flood risk assessments at the site level to further understand how sites are vulnerable to local flooding events. This is followed by the development of flood and cyclone emergency plans which are specific to our facilities' conditions in Indonesia and addressing the risks of flooding and cyclones. In Indonesia Karawang factory is located in the Industrial Estate Area in West Java province. For this site PMI's emergency plan is also covered by the industrial estate's emergency plan. PMI operates another factory in Sukorejo, which is located in East Java. As part of the PMI Business Contingency Plan, both manufacturing production facilities are linked, and Karawang's production can be temporally discontinued, in case of flood and cyclones, and be transferred to Sukorejo. PMI's insurance and business continuity management plans are informed through this process and designed to mitigate the impacts associated with disruptions that may result from flooding events.

PMI further mitigates these risks by having widely distributed operations across the world, which reduce impacts from individual facilities. This process was applied in the indicated manufacturing facility in Indonesia. This response is already underway; PMI revises these plans on a periodic basis (every year) as a business continuity exercise and carries out any necessary adjustments as needed.

Besides our approach to minimize impacts from potential floods, we have safety margins and safety stocks to ensure that any potential negative impact from the identified risks could be adequately compensated through the course of our business-as-usual operations, preventing potential out of stock situations. Such safety stock are calculated based on historic supply and demand, as well as the evaluated risk exposure in a particular market.

Cost of response

1000000

Explanation of cost of response

The cost of response (\$ 1 million) is estimated based on recurring cost of external providers used to assess flood and business continuity risk annually, and related staff costs. Flood risk assessments are undertaken at the site level to understand how vulnerable sites are to cyclones/local flooding events. These assessments provide a better understanding on the scale and nature of this risk and our insurance and business continuity management plans are designed to mitigate the impacts from short and medium-term (0-5 years) flooding events.

Country/Area & River basin

Poland	Wisla
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Type of risk & Primary risk driver

Acute physical	Drought
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Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Drought risk assessments are undertaken at the site level to understand how vulnerable sites are to local drought events through the use of WRI Aqueduct and IPCC Climate Change Projections. We conduct environmental risk assessments in the frame of ISO14001 to identify material risks and opportunities, which include drought risk management and mitigation plans. From the Global risk assessment, PMI identified that its manufacturing facility in the Wisla basin (Poland) is directly exposed to potential disruptions in production capacity due to drought. This indicator has been identified as 'high risk' according to the results from PMI's risk assessment, and provided that the sole water source of the site is the third party provider, which, in case of drought, will have to prioritize other users (i.e., mainly households), in the city of Krakow where the site is situated.

We estimate one week of water unavailability as a minimum threshold which could cause a potential substantive impact.

In 2021, our manufacturing facility in the Wisla basin was responsible for the production of around 11% of PMI's total production of cigarettes. We disclosed about this facility due to its relevance for the business based on its production capacity.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

850000

Potential financial impact figure - maximum (currency)

6790000

Explanation of financial impact

We estimate the relative magnitude at the range of \$0.85 million to \$6.79 million in the long term (more than 6 years) for our operations based on potential disruptions in production capacity and current production data, as well as per our insurance's estimations, not having experienced yet such an event. PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials). These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of days in major event * cost of business interruption per day

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

PMI's response is already underway and has been focused on reducing water dependency on water withdrawals through the implementation of water saving initiatives in our factory. The expected timeframe of completion of this response is 2025, following our updated sustainability roadmap which includes PMI's targets to optimize water usage across our operations. This timeframe is revised annually as part of our risk assessment process and adjusted to reflect any changes arising from additional water interventions that are needed to mitigate these risks.

Since 2013, PMI has implemented several water efficiency, reuse, recycling and conservation projects which specifically aim to reduce water consumption and make the site more resilient to droughts. More specifically PMI has focused on investing in the following interventions:

- simplification of Burley tobacco processing treatment;
- modernization of main Reverse Osmosis station;
- aerators in sinks and showers installation in change rooms;
- change in the suction vapor from pipe dryer;
- Reverse Osmosis unit modernization;
- reduction of water consumption by HAAR and scrubber in tobacco expansion plant;
- Water reduction for powder transfer in flavor preparation;
- Reduced time for Flash Tower Dryer automatic cleaning ;

- Leakage reduction in tobacco processing ;
- Reduced time for flavour tank cleaning;
- Reduced steam generation in the drying process ;
- Leakage reduction in Scrubbers;
- New water meters installation in and connection to the BMS.

Besides our approach to optimize water consumption in our factory, we have safety margins and safety stocks to ensure that any potential negative impact from the identified risks could be adequately compensated through the course of our business-as-usual operations, preventing potential out of stock situations. Such safety stock are calculated based on historic supply and demand, as well as the evaluated risk exposure in a particular market.

Cost of response

93000

Explanation of cost of response

The cost of response refers to the investment costs (\$93,000) for the design and implementation of the initiatives since 2013 as described above (i.e. the cost is one unique figure referring to the total program budget and not calculated). In 2021 the implementation of an additional water efficiency project to turn off condensate cooling of the FTD was implemented, which is expected to reduce water withdrawals by 2,000 m3 per year. PMI re-evaluates the need for further investments on an annual basis and updates its budget to manage water related risks in all factories, including in Poland.

Country/Area & River basin

Italy	Other, please specify (Reno)
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Type of risk & Primary risk driver

Chronic physical	Water stress
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Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Water risk and opportunities assessment is undertaken at the site level to understand potential issues with regards to a shared and sustainable management of the water resources, following the ISO 14001 standard. At a global level PMI conducted a water risk assessment using of WRI Aqueduct and a climate change risks and opportunities assessment following TCFD recommendations. These assessments aim to identify material risks and opportunities, which include flood, drought, baseline water stress, water depletion and water quantity limitations risk management and mitigation plans discussed with our insurers and local stake holders. From the risk assessment, PMI identified that its manufacturing facility in Zola Predosa (Italy) is directly exposed to potential disruptions in production capacity due to water stress and drought as these indicators were identified as 'very high risk' according to results from PMI's risk assessment, which could impact PMI's manufacturing operations during a dry year. This factory relies 100% on a 3rd party water provider that might have to prioritize other users (i.e.: mainly households), in case of water unavailability. This heated tobacco units manufacturing center is important in PMI operations, not for its manufacturing capacity, but for the capability to evaluate manufacturing optimization practices, including the ones related to water use, and therefore it is strategically significant for the business.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-high

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

20000

Potential financial impact figure - maximum (currency)

150000

Explanation of financial impact

We estimate the relative magnitude at the range of \$20,000 to \$150,000 in the long term (more than 6 years) for our operations based on potential disruptions in production capacity and current production data, as well as per our insurance's estimations, not having experienced yet such an event.

PMI's range of potential financial impacts related to water impacts is developed by estimating potential losses related to minor and major business interruptions. This assessment is carried out on a per facility basis considering the total cost of business interruption per day based on production costs (excluding raw materials). These costs mainly represent labour costs from business disruption, as production would not be able to continue. PMI's estimated range of financial impacts can be broken down as in the formula below; the actual number of days of business interruption will depend on the site's ability to recover from an event:

Potential financial impact (minimum): number of interruption days in minor event * cost of business interruption per day

Potential financial impact (maximum): number of interruption days in major event * cost of business interruption per day

Even though the indicated financial impact figure is initially below our threshold for substantive financial impact, the risk has been evaluated as substantive due to the manufacturing facility strategic relevance and connection to the manufacturing of smoke-free products.

Primary response to risk

Amend the Business Continuity Plan

Description of response

This response has already been completed. PMI has a business continuity plan in place to prevent financial impacts from increased water stress that could lead to reduction or disruptions in production capacity in its manufacturing facility in Reno, Italy. PMI's business continuity plan involves a temporary shift of production from our manufacturing facility in Reno, to an alternative approved facility in Europe which is already manufacturing the same products. As PMI's manufacturing operations in Reno

are relatively small (these represent around 1% of the total PMI Heated tobacco units (HTU) production), this operational shift could be accomplished in a very short period of time (less than two months), which would prevent substantive financial impacts in the event of business interruptions materializing. PMI's alternative location has been assessed in terms of water risks and is not expected to be impacted by drought, water stress, floods or any other water related disruptions in the long term, as per the results of PMI's risk assessment process using the WRI Aqueduct and IPCC Climate Change Projections. PMI's current plant considers a reallocation of production of up to one year, however it could assess shifting operations permanently if results from future water risks assessments require a different response.

Besides our approach to optimize water consumption in our factory, we have safety margins and safety stocks to ensure that any potential negative impact from the identified risks could be adequately compensated through the course of our business-as-usual operations, preventing potential out of stock situations. Such safety stock are calculated based on historic supply and demand, as well as the evaluated risk exposure in a particular market.

Cost of response

500000

Explanation of cost of response

The cost of response (\$ 500,000) is estimated based on the expected increases in production costs (\$/ volume of production) associated to shifting production to PMI's alternative approved facility in Europe, for an estimated period of one year. The expected increases would be linked to higher operational costs of the alternative facility, mainly due to higher labour costs.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Indonesia	Other, please specify (Citarum River Basin & Brantas River Basin)
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Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical	Other, please specify (Drought)
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Primary potential impact

Supply chain disruption

Company-specific description

Physical climate change risks could adversely impact quality and yield of the crops we use, such as tobacco leaf and cloves. Indonesia tobacco leaf suppliers are exposed to physical climate change risks (drought and flooding being most critical). Tobacco growing is strongly influenced by climate change such as changes in temperature and precipitation. Specifically, in the markets where we source from located in the tropics and subtropics that are more vulnerable to climate change, precipitation pattern shifts (too much/ too little rain) could impact PMI's sourcing strategy due to crop losses, quality degradation and disrupted supply chains.

Clove is an essential raw material for PMI to use in our local kretek brands. Indonesia produces over 70% of the world's cloves and PMI purchases 100% of clove supplies from Indonesian farms (purchasing about 18% of the total clove grown in Indonesia), making it a substantial market. Clove production is 100% rainfed, making it highly reliant on well distributed rainfall during the growing season. Clove yields fluctuate historically, with harvests varying up to 60% over a 4-year cycle and climate change might increase these fluctuations if dry seasons are prolonged or rain events become more extreme. These fluctuations can cause yield volatility, resulting in crop losses/ decreased yields for suppliers and farmers. Without mitigation measures in place, these fluctuations in availability could threaten PMI's largest clove source, impactful also because PMI is one of the largest kretek cigarettes producer in Indonesia.

To help mitigate potential impacts of El Niño/ La Niña events or other climatic extremes, the duration of PMI's stock is extended over a number of years to prepare for any variations in yields. In the past, these weather shifts have typically only impacted 1 season of clove production, making stocks sufficient but the magnitude and unpredictability of climate change events can now affect more than 1 crop year in a row. Market price dynamics are very reactive to clove production fluctuations when impacted by El Niño and La Niña events, making planning extremely difficult for suppliers and farmers that become more linked to speculative approaches, thus keeping more than one year of stock becomes a critical action for PMI.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

3400000

Potential financial impact figure - maximum (currency)

12900000

Explanation of financial impact

The potential financial impact range is based on a long-term assessment of costs from physical climate change risks related to drought for the specific case of Indonesia. The lower range derives from our comprehensive climate change risk assessment tool combined with the threshold defined for the substantive financial impact, resulting in an 8% estimate (applied either to the sourced volume or spend). The upper range reflects an estimation of 28% based on our modelling projection, that feeds our climate

change risk assessment tool (CCRA based on the IPCC and RCP8.5), of the expected impact due to climate change (worst case scenario) for this country. We estimated the relative magnitude between \$3.4-12.9 million per year while we foresee this risk in the short to long-term (>6 years) for the Indonesian growers due to supply chain disruptions arising from drought and flood events during the growing season and combining estimated costs due to disruption from crop losses (based on the cost of production, considering potential production fluctuations), quality impacts, and supply chain restrictions (a critical event, for example, can inhibit farmers from accessing their crops during an event). The range that we have calculated is based on the number of days in which activities could not be performed at farm level, therefore constituting a delay/ loss in production.

Primary response to risk

Supplier engagement	Promote the adoption of sustainable irrigation practices among suppliers
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Description of response

As part of our tobacco procurement strategy, we require all tobacco suppliers to follow our Good Agricultural Practices, which provide measures to mitigate water-related risks through the adoption of climate smart agriculture practices. We implement globally our Local Risk Assessment (LRA) methodology utilizing granular local data to highlight water-related risks and engaging local stakeholders including tobacco suppliers. PMI utilizes the LRA results to implement initiatives with farmers to improve agricultural resiliency to flooding and drought such as the case in Indonesia where the results of the 2018 LRA have led to continued planning and implementation of interventions in 2021. Focus trial projects to mitigate the effects of drought impacts on cultivated crops were deployed in clove and tobacco growing areas. In particular, drip irrigation systems have been tested with farmers in clove production to increase resiliency, reduce dependency on rainfall and avoid productivity losses.

The results of our actions and initiatives include the physiology of our crop has been better understood and the water relationship including stress thresholds and optimal water uptake have been systematically tested and more efficient irrigation protocols, for more consistent productivity, derived. Another example is the improved water access through the drilling of deep wells for tobacco growing to ensure the continuous availability of water for crop irrigation and human consumption, to avoid potentially negative impacts linked to changing weather patterns, supported by a thorough investigation of the deep well's impact on the groundwater level. The results of the deep well have been positive in the provision of clean, drinkable water for the local communities as well as improved water for irrigation with a more reliable supply during dry spells.

The expected timeframe of completion of this response is 2025, following our updated sustainability roadmap which includes PMI's targets to optimize water usage across our supply chain. This timeframe is revised annually as part of our risk assessment process, and adjusted to reflect any changes arising from additional water interventions that are needed to mitigate these risks. In order to ensure business continuity, PMI has substantial inventories of tobacco leaf and clove which can help mitigate short to medium term impacts (up to 5 years).

Cost of response

55000

Explanation of cost of response

As part of our tobacco procurement strategy, we require all tobacco suppliers to follow our Good Agricultural Practices (GAP), which provide water related risks mitigation through the adoption of climate smart agriculture practices. We implement globally our Local Risk Assessment (LRA) methodology utilizing granular local data to highlight water-related risks and engaging local stakeholders including tobacco suppliers. PMI utilizes the LRA results to work with farmers to improve agricultural resiliency to flooding and drought like in Indonesia where the results of our LRA led to planning and implementation of interventions in 2021 and that will continue in the next years. Focus trial projects to mitigate the effects of drought impacts on cultivated crops were deployed in clove and tobacco growing areas. Drip irrigation systems have been tested with farmers in clove production to increase resiliency, reduce dependency on rainfall and avoid productivity losses.

The cost of response is based on a \$55,000 budget allocated in 2021 to environmental projects (related to climate change, water security and biodiversity) under the GAP program implementation in Indonesia. The engagement with tobacco and clove suppliers in crop management practices in Indonesia is included in the cost of response. The expenditures represent approx. 1% of the 2021 global GAP budget. Similar investment is expected over the next 10 years considering projected climate change and the potential scale-up of current projects.

Country/Area & River basin

Brazil	Rio Prado
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Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical	Other, please specify (Heavy precipitation (rain, hail, snow/ice), and Flood (coastal, fluvial, pluvial, groundwater))
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Primary potential impact

Supply chain disruption

Company-specific description

In the short- to long-term most of PMIs sourcing regions face risks due to physical climate change events, such as cyclones, floods and others, potentially affecting our tobacco suppliers' capability to deliver on contracted volumes globally, e.g., in Brazil, which is among PMI's top 15 tobacco origins. Changes in precipitation patterns and extreme variability in weather patterns could affect the yield, quality and availability of the tobacco crops, triggering a substantive risk in case the potential financial impact is above our threshold (1000 metric tons of tobacco leaves), resulting in sourcing plans modification and increasing operational costs. A substantive impact in Brazil could have the potential to delay deliveries of tobacco affecting significantly the production cycle all the way to the product.

In 2021 hailstorms, droughts and other climate related events in Brazil impacted tobacco farmers, causing important crop losses; about 20,000 ha of production in the South regions were impacted due to extreme weather events mainly hail and drought. The volume losses experienced by tobacco farmers were volumes already contracted by PMI. We had to work on a contingency plan with our suppliers to fulfil our volume requirements. The volumes had to be booked in a short time window thus reducing the power of negotiation that is typical of pre-booked volumes and potentially impacting the price above the substantive impact threshold of \$5 million. Extreme rainfall in the fields may require pumping of excess water; while extreme droughts could require long-term irrigation, both of which would increase tobacco production costs above our substantive financial impact threshold. Changes in precipitation patterns could also affect local logistics, with extreme precipitation events potentially leading to inaccessibility of road networks, disrupting the delivery of tobacco.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

4000000

Potential financial impact figure - maximum (currency)

15800000

Explanation of financial impact

The potential financial impact range is based on a long-term assessment of costs from physical climate change risks related to extreme weather events in our tobacco origins in Brazil in a given year. The range of potential financial impact is derived from previous years' data on crop losses due to extreme weather events, which could lead to increase tobacco production costs as PMI has to look for alternative volumes to be purchased in a short time window, combined with our comprehensive climate change risk assessment tool. Setting the basis as PMI threshold for substantive financial impact (1,000 metric tons of tobacco leaves) for the specific case of Brazil, the lower range results in an estimate 3% (of the sourced volume or spend). The upper range reflects an estimation of 10% (of the sourced volume or spend) based on historical crop loss data (actual impacts reported) and our modelling projection. We estimated the relative magnitude in a range of around \$4.0-15.8 million per year while we foresee this risk in the short to long-term (>6 years) for the Brazilian growers due to supply chain disruptions arising from extreme weather events such as excessive rain fall, hail, and drought, and combining estimated costs due to disruption from crop losses, quality impacts and supply chain restrictions. The costs' estimation takes into account the above factors, however, due to their inter-correlation, our modelling provides a bottom and top range.

Primary response to risk

Supplier engagement	Other, please specify (Promote greater due diligence among suppliers and Increase supplier reporting on water)
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Description of response

PMI's operations and supply chain are globally spread mitigating the effects of severe climatic disruption, and business continuity management plans are designed to mitigate the consequence of supply chain interruption and disruption. We have a thorough risk management process to inform our long-term business planning through different assessments (e.g. water-related risk assessments and Good Agricultural Practices program (GAP) assessments including soil health assessment). The results of these assessments support business decisions, for example internal investments in soil conservation practices among suppliers managed through dedicated trainings and technical support at farm level. Furthermore, PMI collaborates with its suppliers and engages with local communities towards water-related risks mitigation and resiliency.

In 2021 we updated our global water risk assessment and performed additional targeted local water risk assessments in specific tobacco growing areas to better understand our exposure to changes in water security and fine-tune our water stewardship strategy to mitigate the risk in our tobacco supply chain. In 2021, projects were implemented in Brazil on water source protection and landscape conservation practices related to tobacco farming by engaging farmers into creating vegetation buffers and physical protection barriers around water sources within their farmland, contributing to increasing the resilience of the local agricultural system and protecting soil health, in response to increasing occurrence of extreme weather events.

The expected timeframe of completion of this response is 2025, following our updated sustainability roadmap which includes PMI's targets to optimize water usage across our supply chain. This timeframe is revised annually as part of our risk assessment process, and adjusted to reflect any changes arising from additional water interventions that are needed to mitigate these risks.

Cost of response

505000

Explanation of cost of response

The cost of response is based on the set yearly budget allocated in 2021 to environmental projects under the Good Agricultural Practices (GAP) program implementation in Brazil. GAP program is PMI's main initiative to tackle physical climate risks within the company's tobacco supply chain, as identified through our Strategic Enterprise Risks and Company's Integrated Risk Assessment processes. GAP program provides suppliers with a set of climate-smart agriculture practices, action plans and monitoring tools to promote a supply chain that is more resilient to impacts from climate change such as hail, drought, and floods.

Under GAP program, projects have been implemented around PMI's manufacturing facility in Santa Cruz do Sul with the objective of increasing the resilience of natural ecosystems to enhance the livelihood of tobacco farmers. Around 47,500 contracted farmers supply tobacco to PMI (directly or via third-party suppliers) within the region. The focus of GAP initiatives has been to protect water sources, promote tobacco farming practices that enhance landscape conservation, and to train farmers on data collection and monitoring at the farm level. In Brazil around 330 field technicians work year-round with the contracted farmers and suppliers of tobacco to PMI, visiting the farms on average five times during the crop season to monitor projects implementation. This response is already underway, and has a timeframe of implementation of 2025 and 2030 in line with our environmental targets and objectives.

In 2021, the cost of these initiatives was around \$505,000 which includes the total cost of on farm water management and water stewardship activities (e.g., spring protection projects) at landscape level, together with the roll-out of a specific "on farm and next to the farm" biodiversity conservation program. 50% of the expenditure is coming from the implementation of forest protection, renewable fuels and good agricultural practices programs that include training, stakeholder engagement and verification of the results reported. PMI's investment in these initiatives is included in the cost of response and represented approx. 11% of the global 2021 expenditure in environmental projects, similar yearly expenditure is expected over the next 10 years to further support mitigating short to medium term impacts.

Country/Area & River basin

Philippines	Other, please specify (Amburayan River Basin & Laoag River Basin)
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Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical	Other, please specify (Drought, flooding and cyclones)
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Primary potential impact

Supply chain disruption

Company-specific description

Based on GermanWatch's annual Climate Risk Index (2021), the Philippines is in the top 5 countries (4th) most affected by climate change impacts (including cyclones and flooding) resulting in an average loss of \$3.2 billion in purchasing power parity to the country from 1999 - 2019. The supplies of tobacco leaf in Philippines (one of PMI's top 15 tobacco sourcing countries), coupled with negative impacts on tobacco crop quality, and supply chain manufacturing restrictions due to increased severity and frequency of extreme weather events could impact PMI's production and tobacco sourcing strategy, leading to increase in direct costs for PMI, suppliers and farmers. Tobacco leaf growing can be strongly affected by small changes in physical climate conditions such as changes in temperature and precipitation. Yield, quality and availability of tobacco crops could be negatively impacted by changes in precipitation and periods of drought, which have increased in frequency in recent years. This could affect PMI's access to tobacco supplies, impacting crop buying patterns and operational costs, affecting PMI manufacturing operations and business directly. We consider a range for the increase in our operational cost between 16 and 32% given by our modelling and estimation of medium-long term impact of adverse extreme climate events on our supply chain in the Philippines. In case of significant damage to the crop we would be forced to look for alternative sourcing areas within the country in a short time, significantly impacting our power of negotiation. This would also cause additional efforts in defining supply chain logistics and approaches, thus driving up the total cost of tobacco sourcing and unfavorably impacting the market budget for Philippines.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

2800000

Potential financial impact figure - maximum (currency)

5500000

Explanation of financial impact

The potential financial impact range is based on a long-term assessment of costs from physical climate change risks related to drought, flooding and cyclones for the specific case of the Philippines. The lower range derives from our comprehensive climate change risk assessment tool combined with the threshold defined for the substantive financial impact, resulting in a 16% estimate (applied either to the sourced volume or spend). The upper range reflects an estimation of 32% based on our modelling projection of the expected change for this country with climate change (worst case scenario). We estimated the relative magnitude between \$2.8-5.5 million per year while we foresee this risk in the short to long-term (>6 years) for the Filipino growers due to supply chain disruptions arising from physical risks such as drought, flooding and cyclones, and combining estimated costs due to disruption from crop losses, quality impacts and supply chain restrictions.

Primary response to risk

Supplier engagement	Promote the adoption of sustainable irrigation practices among suppliers
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Description of response

As part of PMI's strategy in the procurement of tobacco, we require all tobacco suppliers to follow our Good Agricultural Practices, which provide measures to mitigate water related risks, through the adoption of climate smart agriculture practices. We implement globally our Local Risk Assessment (LRA) methodology utilizing granular local data to highlight water-related risks and engaging local stakeholders including local Leaf suppliers. PMI utilizes the LRA results to implement initiatives with farmers to improve agricultural resiliency to flooding and drought such as the case in the Philippines, where the results of the LRA performed in 2021 will lead to the planning and implementation of interventions in 2022. An example of interventions carried out through previous LRAs in the Philippines is the irrigation viability project, which prevents negative impacts from water discharges after irrigation during the growing stage of tobacco cultivation. This project addresses water availability and quality at local level, mitigating potential negative impacts due to drought, flood and cyclones. Another example is the identification of moderate risks of flooding and seasonal variability in the local risk assessment, which has resulted in interventions focused on mulching and cover crops and also training farmers to be proactive in adapting to the annual variability by utilizing weather forecast data. In order to ensure business continuity, PMI has substantial inventories of tobacco leaf which can help mitigate short term impacts.

The expected timeframe for completion of this response is 2025, following our updated sustainability roadmap which includes PMI's targets to optimize water usage across our supply chain. This timeframe is revised annually as part of our risk assessment process and adjusted to reflect any changes arising from additional water interventions that are needed to mitigate these risks.

Cost of response

21000

Explanation of cost of response

The cost of response is based on the yearly budget allocated to the Philippines in 2021 for environmental projects (mainly related to climate change, water security and biodiversity) under the Good Agricultural Practices program, accounting for approx. \$21,000 in internal investment. The engagement with tobacco suppliers to drive improvements in crop management and environmental protection practices in the Philippines are included in the cost of response and represented approx. 0.4% of the global expenditure in sustainability projects for tobacco from our 2021 GAP budget. In 2021, we continued to implement projects focused on water source protection, water management practices and landscape conservation practices related to tobacco farming, contributing to increasing the resilience of the local agricultural system, in response to increasing physical risks such as drought, flood and cyclones.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Opportunities exist to improve water efficiency in our operations. Improving water efficiency means that less water withdrawal volumes are required for the same production unit volume. A lower water consumption would improve PMI resilience especially in the locations where we operate which are facing water related issues such as water availability and water quality, and could generate additional financial benefit, when the payback period of investment costs of water efficiency interventions are covered. As PMI is aiming to increase the production of smoke-free consumables, the company sees improved water efficiency as a key contributor to achieving ESG objectives, especially due to the fact that these products initially required approximately 5 times more water per unit of product than conventional combustible cigarettes and water efficiency is a relevant opportunity to reduce this ratio.

As more production lines will be converted in the future to smoke-free products, the technological and process know-how acquired from the successfully implemented solutions will become an asset for the company and the financial savings will grow with a multiplicative factor. For this reason, PMI is aiming to optimize all new processes by increasing water recycling and defining specific water quality by use. To seize these opportunities, PMI is implementing technologies such as reverse osmosis and EDI, and a series of initiatives to reduce water use. In 2021, we reduced water intensity by 44 percent versus 2018, achieving a ratio of 2.6 cubic meters per million cigarettes equivalent, down from 4.7 in 2018. As the new manufacturing process matures, we are incorporating new technologies to recycle and reuse water to limit the increase of water discharge.

It should take us around 1-2 years to realize these opportunities. This timeframe is revised annually as part of our opportunity assessment process and adjusted to reflect any changes arising from additional water interventions. Our improvements in water efficiency at PMI manufacturing facilities are driven by a water withdrawal reduction target. In 2021 PMI implemented 60 water efficiency projects across its manufacturing operations. An example of these initiatives are those implemented in our factory in Sampoerna, Indonesia to map our water usage, optimize pressure, and reduce leaks which are expected to reduce water consumption by 46,691m3 per year.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

2000000

Potential financial impact figure – maximum (currency)

3000000

Explanation of financial impact

Results from PMI's water footprint assessment carried out by Quantis indicate that potential financial savings linked to water efficiency are around \$2-3 million in the next 1 - 3 years. The estimates are calculated through direct financial savings that would be experienced by PMI once investment costs of water efficiency interventions are covered.

The Quantis update of the water footprint of our smoke-free products will provide us with a better understanding of opportunities on how to increase water efficiency. In our industry, the potential financial impact that could result by the direct cost of water is medium-low.

Type of opportunity

Resilience

Primary water-related opportunity

Increased resilience to impacts of climate change

Company-specific description & strategy to realize opportunity

Opportunities exist to improve water efficiency in our operations. Improving water efficiency means that less water withdrawal volumes are required for the same production unit volume. A lower water consumption would improve PMI resilience especially in the locations where we operate which are facing water related issues such as water availability and water quality, and could generate additional financial benefit, when the payback period of investment costs of water efficiency interventions are covered.

As PMI is aiming to increase the production of smoke-free consumables, the company sees improved water efficiency as a key contributor to achieving ESG objectives, especially due to the fact that these products initially required approximately 5 times more water per unit of product than conventional combustible cigarettes and water efficiency is a relevant opportunity to reduce this ratio. As more production lines will be converted in the future to smoke-free products, the technological and process know-how acquired from the successfully implemented solutions will become an asset for the company and the financial savings will grow with a multiplicative factor.

For this reason, PMI is aiming to optimize all new processes by increasing water recycling and defining specific water quality by use. To seize these opportunities, PMI is implementing technologies such as reverse osmosis and EDI, and a series of initiatives to reduce water use. In 2021, we reduced water intensity by 44 percent versus 2018, achieving a ratio of 2.6 cubic meters per million cigarettes equivalent, down from 4.7 in 2018. As the new manufacturing process matures, we are incorporating new technologies to recycle and reuse water to limit the increase of water discharge.

It should take us around 1-2 years to realize these opportunities. This timeframe is revised annually as part of our opportunity assessment process and adjusted to reflect any changes arising from additional water interventions. Our improvements in water efficiency at PMI manufacturing facilities are driven by a water withdrawal reduction target. In 2021 PMI implemented 60 water efficiency projects across its manufacturing operations. An example of these initiatives are those implemented in our factory in Sampoerna, Indonesia to map our water usage, optimize pressure, and reduce leaks which are expected to reduce water consumption by 46,691m3 per year.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

1000000

Potential financial impact figure – maximum (currency)

2000000

Explanation of financial impact

The cost of AWS certification varies, however based on cost of AWS assessments and certification audits, it could cost approximately \$8,500 per factory. We do see this as a long-term investment that will increase our resilience to water risks due to climate change and it is difficult to determine exactly how much this will save PMI. Based on potential water savings analyzed and projected by our sites as well as potential investments, we estimate this to be around \$1-2 million for all our operations until 2025. In addition, the AWS process of consulting local communities and stakeholders on water issues helps retain our social license to operate which has a high value even though not quantifiable in dollar terms. We use here \$1-2 million as a proxy until we will have an internal specific valuation of those non-monetary opportunities.

Type of opportunity

Resilience

Primary water-related opportunity

Increased supply chain resilience

Company-specific description & strategy to realize opportunity

PMI estimated that over 90% of its water footprint can be linked to its agricultural supply chain, therefore it is there that the biggest margins for reducing and managing risks related to water issues are. With the risk monitoring system in place, both at global and local levels, combined with the annual water related data collection at farm level, we have access to reliable data to support business decisions towards implementing interventions to improve local conditions within the supply chain and increase the resilience of farming communities linked to our operations. A more resilient supply chain, especially in relation to water conditions in the watershed can lead to more continuity in the business, better capabilities in tackling extreme events and conditions, and more efficiency in the usage of resource water for tobacco growing. By increasing supply chain resilience, PMI is expecting to improve farmers' conditions, and to prevent physical climate risks such as droughts, extended heatwaves and others from impacting the production of raw materials. PMI's strategy has focused on establishing GAP as a standard for suppliers and providing technical assistance to partners in the supply chain to prevent and/or mitigate water risks from materializing. To seize these opportunities, PMI yearly assesses its water risks within its supply chain and shares results with key suppliers.

Since 2018, we have completed 31 local water risk assessments, and we aim to cover all tobacco-growing areas by the end of 2025. PMI's response is already underway, with an expected timeline for completion of 2025. In 2021, we conducted on-the-ground water risk assessments in Argentina Brazil, the Philippines, and Turkey. PMI uses the results to implement initiatives on irrigation and soil conservation practices with farmers to improve agricultural resiliency to water-related negative impacts such as flood and drought. Collective action with our tobacco suppliers and NGOs includes watershed management, e.g. in Brazil the development of drought and flood tolerant seed varieties, as well as access to water, sanitation, and hygiene (WASH) services for farmers and workers in Malawi and Mozambique. By increasing supply chain resilience, PMI is expecting to improve farmers' conditions, and to prevent physical climate risks such as droughts, extended heatwaves and other water-risks from impacting the production of raw materials, which could impact PMI's business.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

3000000

Potential financial impact figure – maximum (currency)

12500000

Explanation of financial impact

Sustainable water and irrigation management has a positive effect on crop yield and helps minimize uncertainty in supply. PMI estimates potential financial impacts to be between \$3-12.5 million with long-term impacts (>5 years). This estimation is done by using financial information from gains in efficiency and crop productivity generated by the implementation of best in class water management practices, among which drip irrigation and drought resistant seed varieties, to avoid crop losses and improve yield. PMI's previous water related projects in its supply chain, as well as data annually gathered through the GAP program (for example, baselines on water practices as well as potential for development of water projects) are further contributing to informing decisions and raising awareness to deliver better results.

W5. Facility-level water accounting**W5.1**

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

IT (PM MTB RRP GF)

Country/Area & River basin

Italy	Other, please specify (Samoggia and Reno)
-------	---

Latitude

44.55151

Longitude

11.16038

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

400.9

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

400.9

Total water discharges at this facility (megaliters/year)

229.66

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

229.66

Total water consumption at this facility (megaliters/year)

171.24

Comparison of total consumption with previous reporting year

Much lower

Please explain

The water consumption decreased from 219.63 megalitres to 171.24 megalitres resulting in a 22% decrease.

Facility reference number

Facility 2

Facility name (optional)

IT (PM MTB RRP ZP)

Country/Area & River basin

Italy	Other, please specify (Reno)
-------	------------------------------

Latitude

44.49783

Longitude

11.23614

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

58.63

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

58.63

Total water discharges at this facility (megaliters/year)

33.8

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

33.8

Total water consumption at this facility (megaliters/year)

24.83

Comparison of total consumption with previous reporting year

About the same

Please explain

The water consumption decreased from 25.22 megalitres to 24.83 megalitres resulting in a 2% decrease.

Facility reference number

Facility 3

Facility name (optional)

Philip Morris Indonesia Karawang

Country/Area & River basin

Indonesia	Other, please specify (Citarum)
-----------	---------------------------------

Latitude

-6.35877

Longitude

107.28877

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

116.79

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

116.79

Total water discharges at this facility (megaliters/year)

74.76

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

74.76

Total water consumption at this facility (megaliters/year)

42.03

Comparison of total consumption with previous reporting year

Much lower

Please explain

The water consumption decreased from 59.63 megalitres in 2020 to 42.03 megalitres resulting in a 30% decrease.

Facility reference number

Facility 4

Facility name (optional)

Philip Morris Polska

Country/Area & River basin

Poland	Wisia
--------	-------

Latitude

50.07172

Longitude

20.02136

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

188.47

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

188.47

Total water discharges at this facility (megaliters/year)

118.01

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

118.01

Total water consumption at this facility (megaliters/year)

70.46

Comparison of total consumption with previous reporting year

About the same

Please explain

The water consumption changed from 67.87 megalitres to 70.46 megalitres resulting in a 4% increase.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually.

Please explain

<Not Applicable>

Water withdrawals – volume by source

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually.

Please explain

<Not Applicable>

Water withdrawals – quality by standard water quality parameters

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually.

Please explain

<Not Applicable>

Water discharges – total volumes

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually.

Please explain

<Not Applicable>

Water discharges – volume by destination

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually.

Please explain

<Not Applicable>

Water discharges – volume by final treatment level

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually.

Please explain

<Not Applicable>

Water discharges – quality by standard water quality parameters

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually. We are routinely measuring our water discharge quality in all our affiliates and we are beyond local requirements. Around 51% of our sites have been reviewed by local authorities. Going forward, we are planning to verify them externally as part of our verification process.

Please explain

<Not Applicable>

Water consumption – total volume

% verified

76-100

Verification standard used

100% of our sites have been ISO 14001 certified successfully in 2021. The scope of certification includes manufacturing facilities producing more than three billion cigarette equivalents annually.

Please explain

<Not Applicable>

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	<p>Description of business dependency on water</p> <p>Description of business impact on water</p> <p>Description of water-related performance standards for direct operations</p> <p>Description of water-related standards for procurement</p> <p>Reference to international standards and widely-recognized water initiatives</p> <p>Company water targets and goals</p> <p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p> <p>Other, please specify (Roll-out anti-littering campaigns in cooperation with local stakeholders to reduce the amount of cigarette butts reaching waterways and the oceans.)</p>	<p>PMI is aware of the importance of water for the company. Water is used in our manufacturing facilities, our agricultural supply chain, and in the production of raw materials and supplies. For this reason, PMI has adopted a company-wide water policy, which effectively integrates all the relevant water dimensions of the business.</p> <p>Our water policy describes the company's business dependency on water, impacts, water-related performance standards for direct operations and suppliers and recognizes the linkages between water and other environmental issues such as climate change and biodiversity conservation. Our water policy is applied at a company-wide level through multiple mechanisms, including the use of international standards, and global targets and goals, further enhanced to reflect our commitments by 2025, described below.</p> <p>PMI uses international standards and widely recognized water initiatives, such as the AWS Standard; we have a goal of certifying 100% of our manufacturing facilities by 2025.</p> <p>PMI has active, time-bound water-related targets and goals to reduce water consumption in our direct operations and supply chain, and to optimize water in our tobacco-growing areas. These targets and goals are aligned with the SDGs and go beyond regulatory compliance. For example, SDG 6 is embedded in our Sustainability and Good Agricultural Practices (GAP) programs. Other targets that go beyond regulatory compliance and contribute to SDGs, include implementing innovative practices in water usage in agriculture, capacity building for farmers and local communities, acknowledging the human right to water by providing access to water and sanitation (WASH), and taking collective water stewardship action. An example of how our commitments and projects foster innovation and collective action is the implementation of irrigation optimization sensors in Italy, leveraging drip irrigation, liquid fertilizers, and the deployment of a decision support system that uses digital technology to ensure the most efficient crop input amounts in tobacco farms.</p> <p>Our approach also recognizes the linkages between water and other environmental topics such as climate change and biodiversity. An example of this is our action roadmap for suppliers and stakeholders which includes watershed action and the development of tobacco seed varieties that are drought and flood tolerant, and our partnership with the Biodiversity Consultancy to identify our main dependencies and impacts.</p> <p>pmi-water-stewardship-policy.pdf</p>

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Board-level committee	<p>PMI's Board of Directors (BoD) and its Committees, incl. the Nominating and Corporate Governance Committee (NCGC) and Audit Committee of the BoD, are responsible to foster the long-term success of the company including setting broad corporate policies, strategic direction, and overseeing management. As part of their responsibilities, the BoD revises and approves PMI's annual budget based on the company's performance and targets, including those resources required to deploy water optimization initiatives to achieve our water targets in our direct operations and supply chain.</p> <p>In 2021, PMI's BoD and NCGC reviewed the results of PMI's sustainability materiality assessment and consequent update of the company's 2025 sustainability goals, including a goal to explicitly preserve nature and address critical water challenges across PMI's value chain. PMI's Integrated Report 2021 was completed with the oversight from PMI's BoD and reviewed by its Executive Chairman.</p>
Board-level committee	<p>The Audit Committee of the Board, composed by 6 Board of Director members at the time of the publication of the 2022 Proxy Statement, reviews with management, the internal auditors and the independent auditors, any sustainability-related information to be included in PMI's financial reporting framework. The Committee reviews and oversees PMI's policies and practices with respect to risk assessment and risk management, which covers those related to climate change. These can be natural disasters, water scarcity and agricultural instability, which may lead to increased pressure on natural resources and conflict with other users, affect our direct operations and/or our supply chain, and thus potentially impacting PMI's ability to operate. Such risks could disrupt our supply chain and could increase costs of our materials and operations.</p>

W6.2b

(W6.2b) Provide further details on the board’s oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	<p>The Board of Directors (BoD) oversees PMI’s full range of activities incl. establishing broad corporate policies, setting strategic direction, and overseeing management. The BoD is responsible for day-to-day operations of the company and considers climate-related issues as part of their oversight process. Part of the BoD’s oversight is focused on management’s efforts to enhance shareholder value responsibly and sustainably. Environmental, social and governance factors (ESG) are part of the responsibility of the BoD, and considered in the evaluation of the annual performances of the company and its management. The BoD approves the company’s annual budget and receives updates on the company’s performance and targets against the budget throughout the year incl. those related to the achievement of sustainability and climate change.</p> <p>The BoD has established various standing Committees to assist with the performance of its responsibilities and is regularly informed on future plans, and significant issues affecting the business, incl. climate-related ones. The BoD meets typically 6 times per year with additional meetings held as necessary. The BoD is advised on climate change-related issues by the Nominating and Corporate Governance Committee of the BoD, which oversees the Company’s sustainability strategies and performance. The committee met 5 times in 2021. The BoD oversees management of risks relating to the Company’s business. Risk oversight is conducted both by Committees of the BoD as well as by the full BoD. Management has identified and prioritized a number of key enterprise risks and, as part of the risk management process, has established a Corporate Risk Governance Committee (“CRGC”) that comprises senior executive officers.</p> <p>The Audit Committee (AC) of the BoD receives updates related to the company’s risk management and internal controls practices at least once per quarter. The company’s risk management and internal control practices are designed to address all significant and/or emerging strategic, external, inherent process, and project deployment risks that could undermine our ability to achieve strategic business objectives and create value. ESG-related risks and opportunities are considered within our enterprise risk management practices. Key risk areas are identified and prioritized, and ownership is assigned for each prioritized key risk area to a member of the Company Management, reporting regularly to the appropriate BoD committees and to the entire Board of Directors throughout the year. The AC of the BoD was assigned to oversee the management of climate change prioritized risk as it could result in natural disasters, water scarcity, agricultural instability, which may impact PMI’s ability to operate; the Committee met 10 times in 2021. A member of the Company Management, the Senior Vice President Operations, was tasked with the responsibility to address the climate change risk, including physical climate and water related risks.</p>

W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Yes	<p>PMI assesses competence of the Board on sustainability related issues, including water related issues, based on its members’ relevant professional experience, academic background or other professional trainings on climate science, environmental science or engineering, sustainability, or other related subjects.</p> <p>Several members of PMI’s BoD have expertise in sustainability and ESG matters, including water. Particularly, one of our Board Directors brings unique understanding of ESG strategy, as he has served as CEO to the Global Adaptation Institute (a foundation dedicated to the understanding of climate change) and as Co-Chair to the World Economic Forum’s Global Agenda Council on Climate Change. His expertise also includes water related impacts from climate change.</p>	<Not Applicable>	<Not Applicable>

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Other C-Suite Officer, please specify (Senior Vice President, Operations)

Responsibility

Assessing future trends in water demand
 Assessing water-related risks and opportunities
 Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Senior Vice President, Operations (SVP Operations) member of the Company Management, is tasked with addressing climate change risk, including physical water risks, and transition risks across all activities of the company, as these could result in natural disasters, water scarcity, and agricultural instability, which may impact PMI's ability to operate.
 Our SVP Operations is delegated with operational responsibility, including maintaining robust business resiliency, risk assessment processes, and strategies to support business continuity; he examines, monitors and reports to the Board, on water related issues ensuring the integration of risk assessment and management into long-range plan, progress against water targets and objectives, budget and performance review processes. Effectively addressing these risks is critical to the achievement of PMI's strategic objectives and therefore is considered during the annual Integrated Risk Assessment process.

Name of the position(s) and/or committee(s)

Other C-Suite Officer, please specify (Sustainability Committee)

Responsibility

Other, please specify (Overseeing PMI's sustainability work)

Frequency of reporting to the board on water-related issues

Annually

Please explain

The Sustainability Committee composed of the company's CEO, CFO, Senior VP Operations, and other members of the Company Management (CM) – meets quarterly to review and validate PMI strategy, commitments, goals, and annual reporting. PMI's sustainability strategy is shaped by a formal sustainability materiality assessment, the most recent being conducted in 2021, re-prioritizing the most relevant sustainability topics for PMI. To help manage these topics from a global and sustainability perspective, within our CM, members are responsible for driving progress and delivering on our sustainability targets within their respective functions (e.g. climate change and mitigate related risk, including physical water risks, across all activities of the company, is assigned SVP Operations, as it could result in natural disasters, water scarcity, and agricultural instability, which may impact PMI's ability to operate).

Name of the position(s) and/or committee(s)

Chief Sustainability Officer (CSO)

Responsibility

Other, please specify (Leading the integration of sustainability, including environmental topics across PMI)

Frequency of reporting to the board on water-related issues

Annually

Please explain

PMI's CSO reports to our CFO and leads the strategy of integration of sustainability, including climate-related issues, across our business, and aiming to actively reduce unfavourable impacts of our business on the environment and water resources, as well as to increase resilience of our business toward water resources in terms of quality and availability. PMI's CSO heads and manages PMI's Corporate Sustainability Team, reports on progress to the Sustainability Committee on a quarterly basis and updates the Board of Directors at least once a year.
 From an operational perspective, our Operations Sustainability and Corporate Sustainability functions coordinate the company's climate change-related activities, including the water resources-related ones. This helps ensure that our global strategies and programs are monitored, assessed and can be implemented at the market level and that local realities are reflected in our global efforts.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	PMI developed a 2025 sustainability roadmap comprising 11 headline goals running to the end of 2025, including the preservation of nature through the promotion of biodiversity and addressing critical water challenges in our direct operations and supply chain. Progress on our roadmap is measured with a set of indicators that collectively form our Sustainability Index. PMI's Sustainability index links ESG performance transparently and objectively to executive compensation. As with our roadmap, we have split the 19 KPIs according to two drivers: "Product Sustainability" (11 KPIs) and "Operational Sustainability" (8 KPIs).

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Corporate executive team Chief Executive Officer (CEO)	Reduction of water withdrawals Improvements in efficiency - direct operations Improvements in efficiency - supply chain	PMI developed a 2025 sustainability roadmap comprising 11 headline goals running to the end of 2025, including the preservation of nature through the promotion of biodiversity, and addressing critical water challenges in our direct operations and supply chain. Progress on our roadmap is measured with a set of indicators that collectively form our Sustainability Index. PMI's Sustainability index links ESG performance transparently and objectively to executive compensation. For a full list of individuals comprising the corporate executive team, please refer to Item 10 of the Annual Report on Form 10-K for the year ended December 31, 2021. As with our roadmap, we have split the 19 KPIs according to two drivers: "Product Sustainability" (11 KPIs) and "Operational Sustainability" (8 KPIs). PMI assesses and awards a score to each KPI on an annual basis based on the company's performance and calculates the extent to which the SI was fulfilled on a scale of 0 to 150 percent, with a target of 90 to 110 percent every year. The weighting applied to each KPI is informed by the results of our sustainability materiality assessment. As set out in PMI's Proxy Statement 2022, for the 2022-2024 PSUs, the SI is one out of three performance metric, and weights 30% of the total executive compensation.
Non-monetary reward	Other, please specify (Sustainability Managers, Employees)	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in efficiency - supply chain Implementation of employee awareness campaign or training program Supply chain engagement Increased access to workplace WASH Implementation of water-related community project	Behavior change related indicator. Every year, a number of PMI affiliates runs certain voluntary awareness and promotion campaigns and internal programs aimed to increase employees' active participation in sustainability and EHS programs and to make water stewardship part of the company's culture. Awards and recognition for best practices form a core element of such campaigns for water efficiency and reduction project; Operations employees also have the opportunity to earn awards for best practice initiatives in the areas of water consumption reduction and water efficiency. This forms part of our Above and Beyond Call of Duty (ABCD) award program which encourages innovation, continuous improvement and employee engagement. Reduction of water intensity, efficiency projects and targets, and increasing access to workplace WASH were selected as indicators of success as they are aligned with the company's vision and they allow PMI to objectively quantify the progress of the company in the field of water and sustainability.

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

- Yes, trade associations
- Yes, other

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

PMI operates within an overarching Code of Conduct (CoC), and a set of Principles and Practices which set the rules and processes that need to be followed when engaging third parties. Together, these regulate engagement activities such as external communications, public statements, making contributions or providing financial support, and other relevant activities involving government officials, public organizations and other third parties. PMI has a publicly available 'Overview of engagement principles' which describes the basic contents of the CoC and our key principles and practices, and highlights PMI's key priorities when interacting with these stakeholders, including ensuring that the positions PMI publicly advocates, and the arguments supporting such positions, are consistent with internal positions and do not overlook any information that PMI may internally have that might be material to our audience. PMI has an internal Compliance Department and help-line available to employees wanting to report suspected violations of our Guidebook for Success or Principles & Practices. Reports can be made anonymously.

We routinely evaluate our participation to ensure the objectives of the external parties we engage with align with our long-term interests, and that their activities continue to comply with our CoC and policies. If inconsistencies or disagreement with certain positions adopted by organizations are found, PMI may withdraw its participation or support.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

- No, but we plan to do so in the next two years

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	16-20	PMI's long-term business objective is to deliver a smoke-free future, by replacing cigarettes with smoke-free alternatives. In our transformation journey we focus our effort on a forward-looking corporate sustainability strategy with smoke-free products at its core, while integrating other material social and environmental topics such as water stewardship. Water issues are integrated in our long-term business objectives, mainly through the identification and management of water risks and opportunities such as droughts, floods and cyclones which can directly impact PMI's value chain. We have also set water efficiency targets in manufacturing, optimization targets in our supply chain which were linked to executive compensation in 2021. Our Sustainability Team reviews annually the long-term business goals and their connection with water and other environmental risks and opportunities, which determine future management actions. Since the physical risks of climate change which include disruptions to water availability and security, might significantly impact our business and supply chains, we conducted climate risks assessments considering 2030 and 2040 scenarios since that is when we start seeing climate trends shift. This time horizon was selected as it is also aligned with our risk planning and climate change Science Base Targets, allowing us to implement actionable goals with tangible long-term effects that impact our business (16-20 years vs. 50 years).
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	16-20	Driving world-class sustainability programs to build a resilient value chain and answer our stakeholders' concerns is one of our core strategies to deliver a smoke-free future. Our materiality assessment is the backbone of our sustainability strategy development; water stewardship is part of our material environment topics and is integrated in our long-term objectives. Our strategy is aligned with our annual Long Range Planning process and includes water issues such as water efficiency in manufacturing and water use in agriculture to increase resiliency of our business. Examples are the development of water targets and projects in our tobacco supply chain; the AWS certification of all our factories by 2025 and the investment in technologies to reduce, reuse and recycle water in manufacturing. In 2018, the Nominating and Corporate Governance Committee of the BoD was formally mandated to oversee Company's sustainability strategies and objectives, include water related issues, as this is important for our company's long-term success. With the ongoing challenge of water security, we find it important to look further into the future by conducting climate risks assessments which look out to time horizon 2030 and 2040 for two reasons, 1) it is when we start seeing climate trends shift, 2) it is aligned with our risk planning and climate change goals, enabling us to set actionable goals with tangible long-term effects for our business (16-20 years vs. 50 years).
Financial planning	Yes, water-related issues are integrated	16-20	As PMI is working towards achieving its sustainability goals, OPEX and CAPEX for water related issues are included in our financial planning; e.g. PMI has planned financial resources to 1) implement technologies in manufacturing to minimize the use of water; 2) implement its long term GAP program in its tobacco supply chain to achieve sustainable tobacco production, incl. activities with tobacco suppliers to address water related risks, among others. These activities focus on improvement of crop management practices, incl. investment in more sustainable irrigation practices, water and soil conservation plans, and development of drought and flood tolerant varieties. 3) Conduct water risk assessment, for which PMI annually allocates a budget, and the results are used to inform the company's business and sourcing strategies in the mid and long term to prevent risks of supply disruption and/or potential increase in procurement cost. PMI's risk assessment looks out to 2030 and 2040 as this is when the majority of risks are expected to materialize in the absence of successful mitigation measures. The indicated time horizon was selected as it is aligned with our risk planning and climate change goals, allowing us to set actionable goals with tangible long-term effects for our business.

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

-44

Anticipated forward trend for CAPEX (+/- % change)

74

Water-related OPEX (+/- % change)

-10

Anticipated forward trend for OPEX (+/- % change)

-5

Please explain

CAPEX: In 2021 PMI invested in multiple initiatives to reduce, reuse, and recycle water across 24 facilities, with some of the key initiatives taking place in our facilities in Portugal, Indonesia, and Italy. As we largely focused our investment on the prioritization of water savings through process optimization and water reutilization, investment in initiatives that would come with higher expenditure was limited, causing our CAPEX to decrease by 44% compared to 2020. We currently expect this trend to be reverted, with an anticipated forward trend of 74%.

OPEX: We had a net 10% decrease in our OPEX during 2021 driven by water efficiency interventions. Particularly, our manufacturing facilities in Portugal, Indonesia and the Netherlands managed to reduce their water expenses through the implementation of water efficiency interventions, which overall reduced their water withdrawals. We expect this trend to continue, with an anticipated forward reduction of 5%.

W7.3

(W7.3) Does your organization use scenario analysis to inform its business strategy?

	Use of scenario analysis	Comment
Row 1	Yes	As our business relies on agricultural crops, physical risks are the primary driver for us. We conducted a physical climate risk analysis of our direct operations and our tobacco suppliers growing regions the IPCC RCP 8.5 and RCP 4.5, IEA 2DS and CPS, and NDCs scenarios. Additionally in 2019, we finalized our evaluation of climate change risks aligned with TCFD recommendations, and we reviewed it in 2020 and 2021. In it PMI identified risks and opportunities for its business under a reference scenario (exploring a decarbonization approach under the existing climate and energy policies) and a 2 degree scenario (aligned with an average global temperature increase below 2 degrees). The assessment considered the importance of water resources for PMI's direct and indirect operations and looked into several water elements including projected prices of water and their implications, changes in water supply, water stress and others.

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Climate-related	Our evaluation of water security impacts uses the IPCC RCP 8.5 scenario which allows us to model and better understand the potential worst-case impacts across our operations and value chain. The PMI Water Risk Assessment projected water stress in company’s global sites (i.e., factories, warehouses and offices) to 2030 and 2040 under optimistic (SSP2-RCP 4.5), BAU (SSP2 – RCP 8.5) and pessimistic (SSP3 – RCP 8.5) scenarios, fully aligned with the information provided by the World Resources Institute (WRI) platform Aqueduct. Results of this water risk assessment inform our Integrated Report 2021 as well as our CDP Water Security disclosure. Results are aggregated in our climate change risk and opportunity assessment (CCRO) in place since 2015, and integrated 2019 with TCFD recommendations to so as to provide transparency on the financial impacts of the evaluated scenarios, following a consistent process to assess the importance of climate change risks and opportunities to PMI business. Our scenario analysis focuses on various metrics including crop loss, business disruption to contextualize risks to our operations in the future. The coverage of our scenario analysis is company-wide.	Results from our CCRO have shown that both our manufacturing facilities and our tobacco supply chain are exposed to incremental chronic and acute physical risks. Some of the potential impacts include increased risk of drought and cyclones in some of our tobacco growing areas (TGAs) as well as some of our facilities. For example, in the Philippines, based on our scenario analysis, there is an increasing risk of crop loss from droughts, with losses estimated greater than 10 percent. Our new smoke-free products facilities in Italy and our factory in Poland are likely to be affected by increased water stress and drought, and we anticipate potentially increasing downtime and temporary geographical shift of operations in some cases. On the other hand, increased water scarcity is expected to increase competition for water resources, particularly in those areas already under water stress; this is the case for our TGA in the Firat-Dicle Basin in Turkey, where we expect further competition for water resources between agriculture and manufacturing industries.	PMI’s strategic and operational response to the water-related outcomes from our CCRO is focused on increasing water efficiency, minimizing impacts to water quality, and optimizing water usage at the landscape level by becoming better water stewards both in our manufacturing operations and supply chain. This is incorporated to our business strategy through our multiple water targets for our operations and supply chain by 2025 and 2030. In our direct operations, we continue to reduce water use in our facilities through improvement in water efficiency. Since 2018, we have intensified the implementation of our water related initiatives, to anticipate potential shortages in water availability, including those in Italy and Poland. The expected full implementation, including the evaluation of pilot projects and expansion is forecasted by 2025. We will also certify 100% of our manufacturing facilities through the Alliance for Water Stewardship standard by 2025. In our supply chain, our response has been focused on supporting and investing in growing practices that enable the tobacco crop to be resilient to changing water scenarios; this includes improved irrigation strategies, the use of drought resistant seeds, amongst others. Our target of performing local water risk assessments across all our TGAs by 2025 will also allow us to continue identifying additional risks and tailored opportunities in our supply chain. This also includes our 2030 target for water optimization in our TGAs.

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

Yes

Please explain

In our tobacco supply chain, after reviewing risk, we estimate the cost of potential projects in dollar per cubic meter optimized to determine the most cost-effective project that results in the most volumetric benefit for the watershed. As member of Value Balancing Alliance (VBA) we explore the Triple bottom line accounting concept which focus on the balance between environmental, social, and economic issues. Water is a relevant topic included in the VBA’s valuation metrics, and we expect through the participation to this working group to assess the relevance to use an internal price on water. We evaluate performance in a broader perspective to create greater business value using reports and indicators based on different sources such as Global Reporting Initiative (GRI) and SAM CSA.

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Definition used to classify low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, but we plan to address this within the next two years	<Not Applicable>	Other, please specify (PMI is working to better understand the water impacts of its portfolio of smoke-free products compared to other in the market. This information might be used to benchmark our products and classify them as low water impact where applicable.)	PMI is currently working to better understand the water impacts of its portfolio of smoke-free products compared to other similar devices in the market through a life cycle perspective. This information might be used to benchmark our devices and classify them as low water impact where applicable.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level Goals are monitored at the corporate level Site/facility specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	<p>PMI's approach and motivation to set targets and goals is focused on minimizing our impact on water resources by reducing our water intensity per unit manufactured (cigarette or heated tobacco unit) and ensuring that we apply water stewardship principles across our supply chain. More specifically, PMI is committed to be a good water steward by minimizing water use and effluent discharge in our factories; assessing water risks where we operate and working with stakeholders in shared watersheds towards the 5 water stewardship outcomes (good water governance, sustainable water balance, good water quality, habitat protection and WASH); and implementing good agricultural practices in our tobacco supply chain. We leverage from the same governance and monitoring mechanism, put in place for the company-wide science-based targets for GHG reductions, to synergize and expand on our targets towards water withdrawal which have an impact at basin level. E.g., we use the platforms for monitoring and measuring, developed for energy consumption, to connect our water meters to measure withdrawals and the efficiency of the locally implemented initiatives.</p> <p>The manufacturing process is identical in all of our factories, and we have companywide common environmental policies and standards, and we make sure that these are followed through internal and 3rd-party audits. We work to understand the water risks in our operations, agricultural and non- agricultural supply chain and create specific targets to mitigate any risks. An example is our target to certify all our factories by end 2025 against the AWS standard, prioritizing them based on their water-risks. Another example includes our new target (as of 2020) to optimize 10 million cubic meters by 2030 across our tobacco supply chain. Based on a scientific approach, optimizing 10 million m3 will come from projects in irrigation efficiencies, leak protection, recharging aquifers, conserving or restoring natural terrestrial and aquatic areas, and/ or preventing stormwater runoff. The volumetric impact of these projects will be measured using the internationally recognized, science based, World Resource Institute Volumetric Water Benefit Accounting methodology.</p> <p>To monitor projects on the ground, suppliers and field technicians visit project sites and provide regular progress updates. Our Local Risk Assessments (performed with suppliers) help identify areas of risks and potential mitigating projects. This new water stewardship target helps connect our detailed supply chain risk analyses with actionable, measurable projects. Finally, we also have a target of ensuring that 100% of contracted farmers by our suppliers and affiliates, throughout our tobacco supply chain have access to drinking water, sanitation, and hygiene. In 2021 we provided guidance on monitoring drinking water quality. By tracking progress, we will know which tobacco growing areas require more assistance from us.</p>

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Water stewardship

Description of target

In 2015, we exceeded our goal to reduce 20% our water withdrawals in all our manufacturing facilities from a 2010 baseline. Since then, we have focused on future water demands that PMI will face from transitioning to smoke-free products (as these were initially five times more water intensive than combusted cigarettes), and in 2019 set a company-wide target to achieve a water ratio of 3.1 m3 of water withdrawn per million cigarettes equivalent produced by 2022. PMI set this target to focus on mitigating its future operational water demands increase due to the expansion of smoke-free products, as well as to increase resiliency with regard to water related risks by identifying and reducing water demand in key parts of the manufacturing process. As we convert more factories to produce smoke-free products, we will be resetting our target baseline level to reflect the new production process and relative difference in water withdrawals.

Quantitative metric

% reduction per unit of production

Baseline year

2010

Start year

2019

Target year

2022

% of target achieved

100

Please explain

Despite the increase of production of our new smoke-free products which initially required approximately five times more water per unit of product than conventional cigarettes, we managed to reduced withdrawals by improving water efficiency throughout the process and implementing new technologies to recycle and reuse water, and by using rainwater harvesting where feasible, with a view to minimize water discharge. In 2021, we managed to achieve a ratio of 2.6 m3 of water withdrawn per million cigarettes equivalent produced following the expected reduction pathway and meeting our 2022 target. PMI will continue to develop additional water efficiency measures, and invest in novel technologies to continue reducing our water footprint.

Target reference number

Target 2

Category of target

Community engagement

Level

Site/facility

Primary motivation

Risk mitigation

Description of target

The AWS Standard is a globally applicable framework for major water users to understand their water use and impacts as well as to work collaboratively for sustainable water management in a catchment context. PMI uses this Standard to engage local communities and other users in the catchment area such as local authorities, farmers and others on different water issues such as good water governance, sustainable water balance, WASH, good water quality and others. Achieving an effective water management at the catchment level will allow us to avoid water conflicts and achieve water security. PMI created a roadmap based also on the results of the water risk assessment, to prioritize the sites for the assessment and certification under the AWS. After our first pilot in Brazil in 2018 we plan to extend our efforts globally by 2025 and hope that the commitment, to certify all of our factories, will inspire other companies in our value chain and beyond to take similar steps on water stewardship.

Quantitative metric

Other, please specify (Number of sites certified by AWS)

Baseline year

2018

Start year

2018

Target year

2025

% of target achieved

43

Please explain

We joined the Alliance for Water Stewardship (AWS) in 2017, a leading organization dedicated to better managing water within the local watersheds. We successfully piloted the adoption of the AWS Standard in our factory in Brazil and developed a toolbox for wider implementation. In March 2018, our Brazilian factory became the first factory to be certified by AWS in the country. In 2021, our sites in Brazil, the Czech Republic, Greece, Indonesia, Italy, Mexico, the Philippines, Poland, Portugal, Romania, Russia, South Korea, Switzerland, Turkey, and Ukraine completed the certification process, bringing the total number of our factories certified since 2018 to 16. As a priority, we plan to certify 100% of our factories by 2025, aligning with our ISO 14001 scope: all factories above 3 million cigarette equivalent annual production volume. We select and prioritize the factories to be certified based, amongst other criteria, on the outcome of our recent water risk assessment.

Target reference number

Target 3

Category of target

Water pollution reduction

Level

Other, please specify (Tobacco supply chain)

Primary motivation

Reduced environmental impact

Description of target

We are aware that the use of fertilizers and pesticides in our agricultural supply chain can cause water pollution, which would damage natural ecosystems and affect the company's operations, and other water users. To prevent negative impacts on water ecosystems, maintain water quality and achieve long term water security PMI has set targets for all our tobacco suppliers to eliminate WHO TOX1 pesticides by 2018, and other Highly Hazardous Pesticides (HHPs) as defined by FAO/WHO guidelines by 2020. Since 2020, this target has been met and PMI continues to monitor its attainment on an annual basis. PMI set these targets following the FAO and WHO recommendations on the classification of highly hazardous pesticides. PMI engages its tobacco supply chain through its Good Agricultural Practices program, and monitors progress on this target annually at the supplier level.

Quantitative metric

% reduction in concentration of pollutants

Baseline year

2015

Start year

2015

Target year

2021

% of target achieved

100

Please explain

Pesticide residues are measured by PMI's Tobacco Lot Integrity program where 100% of its tobacco purchased lots are tested by independent, accredited labs before PMI accepts it. PMI has made important steps towards the elimination of WHO TOX1 and other HHPs since the start year of 2015. Based on this program, PMI assessed that as of 2018, all sourced tobacco lots have been tested as free from quantifiable levels of residues attributable to the use of WHO TOX1 CPAs, and as of 2020 have been free from residues of other HHPs. We maintained this performance during 2021; based on these achievements we have reached 100% of our target, however this will continue to be monitored on an annual basis.

Target reference number

Target 4

Category of target

Watershed remediation and habitat restoration, ecosystem preservation

Level

Company-wide

Primary motivation

Water stewardship

Description of target

As defined by the Alliance for Water Stewardship, a shared water challenge is a water-related issue, concern, or threat shared by the site and one or more stakeholders within the catchment(s). Drawing on our experience and the findings of our risk assessments, we aim to go beyond water management toward water stewardship to tackle shared watershed challenges, leveraging a science-based approach to improve water conditions for beneficiaries across each watershed. We have set a target of optimizing at least 10 million cubic meters of water (cumulative since 2019) in our tobacco-growing areas by 2030 through dedicated projects that address shared water challenges in the watersheds where we operate. To achieve this goal, we plan to generate volumetric water benefits through farm- and landscape-level interventions, leveraging our on-the-ground presence in collaboration with our suppliers and local stakeholders.

Quantitative metric

Other, please specify (Cubic meters of water optimized in our tobacco-growing areas)

Baseline year

2019

Start year

2019

Target year

2030

% of target achieved

4

Please explain

In 2021, we partnered with the experts of Bluerisk and Valuing Impact to apply the World Resource Institute's volumetric water benefit accounting (VWBA) methodology to our tobacco supply chain. This allowed us to better understand the potential impacts of water retention interventions, whether positive (e.g., carbon sequestration from increased soil organic matter) or negative (e.g., increased water withdrawals due to irrigation systems that may trigger increased evapotranspiration). The projects we undertake range from nature-based solutions to irrigation efficiencies and rainwater collection.

For example, in 2021, we modified our farmer footprint in Turkey by supporting farmers in switching their previous crops to tobacco, which requires substantially less irrigation water. This change has helped address competing demand for limited water supplies in the water stressed Aegean Region, reducing by more than 300,000 cubic meters the amount of water withdrawn from the local watershed.

W8.1b**(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.****Goal**

Engagement with suppliers to help them improve water stewardship

Level

Basin level

Motivation

Water stewardship

Description of goal

The AWS Standard is a globally applicable framework for major water users to understand their water use and impacts as well as to work collaboratively for sustainable water management in a catchment context. PMI uses this Standard to engage suppliers and other users in the catchment area such as local authorities, local communities and others on different water issues such as good water governance, sustainable water balance, WASH, good water quality and others. It is key for PMI to achieve an effective water management at the catchment level as it will allow PMI to avoid water conflicts and achieve water security objectives.

As part of the local Alliance for Water Stewardship roll out in our factories, we are engaging local suppliers (tobacco suppliers, farmers or direct material suppliers) to promote the standard and exchange best practices. By 2021, 16 of our sites have been AWS certified and all our sites will be certified by 2025. This is an important goal because it promulgates the use of the AWS international standard for sustainable water use within the organization and beyond. This reinforces our commitment to a rigorous and data driven approach to evaluating water. Our AWS team and our employees on site are fully engaged to ensure that our factory meets the AWS standard, including engaging with local authorities, the farming community and civil society groups.

Baseline year

2018

Start year

2018

End year

2025

Progress

In 2017, we started to pilot the Alliance for Water Stewardship (AWS) Standard, successfully certifying our factory in Brazil in 2018. In 2021, our sites in Brazil, the Czech Republic, Greece, Indonesia, Italy, Mexico, the Philippines, Poland, Portugal, Romania, Russia, South Korea, Switzerland, Turkey, and Ukraine completed the certification process (or, for those sites that previously had been certified, underwent the annual surveillance audit), bringing the total number of our factories certified since 2018 to 16, as part of the program to certify all factories by 2025. PMI uses the number of certified factories as indicator of success. In line with our target to certify all factories in scope by 2025, the progress against the target is measured as the number of factories certified as per AWS (Alliance for Water Stewardship) Standard. 16 factories have been certified by 2021 and the full adoption of the standard in the remaining factories by 2025 as the threshold of success. Through the AWS certification process, we engaged actively with more than one supplier per site in the catchment area including water suppliers, tobacco farmers/suppliers or paper suppliers, in line with our goal.

Goal

Engagement with suppliers to help them improve water stewardship

Level

Basin level

Motivation

Water stewardship

Description of goal

We conduct local water risk assessments (LRA) to complement results from our global risk assessment, leveraging primary data sources and interviews with stakeholders to gauge both internal and external water risks on their tobacco-growing area (TGA). Results from LRAs allow PMI to further improve our knowledge of local conditions, as well as the type and extent to which local risks and opportunities are applicable to farmers in our tobacco supply chain. Once risks and opportunities are identified, PMI develops specific projects to address local water risks. Examples of these projects include the construction of irrigation ponds in India to mitigate risks related to seasonal variability, as well as the implementation of drip irrigation to reduce water withdrawal and mitigate risks related to competing demand across tobacco farms and other water users in the watershed in Argentina. For this reason, carrying out LRAs across all our TGAs is crucial towards becoming better water stewards.

Baseline year

2018

Start year

2018

End year

2025

Progress

Between 2018 and 2021 PMI has carried out 31 LRAs covering 28 Tobacco Growing Areas (TGAs). During 2021, PMI carried out 5 LRAs across the Philippines, Turkey, Argentina, USA and Brazil, as well as 3 complementary LRAs for those TGAs that consisted of more than one watershed. Our goal is to carry out at least one LRA for 100% of our TGAs by end of 2025, and to update findings every 3 to 5 years depending on the risk profile of the TGA. As of 2021, PMI has completed at least one LRA in 66% of our TGAs and is on track to achieve this objective. PMI will continue to undertake LRAs in 2022 to further understand local water risks and opportunities, and to build best practice together with our tobacco suppliers.

Goal

Promotion of sustainable agriculture practices

Level

Basin level

Motivation

Risk mitigation

Description of goal

Water scarcity is a global issue linked with climate change, which could have a direct impact on PMI's agricultural supply chains. PMI has identified that more than 90% of its water footprint can be linked to its supply chain (tobacco supply chain alone is responsible for 51% of our water footprint), where suppliers use it as a key element for the production of raw materials. Seen as PMI's business security is wholly dependent upon its raw materials in the supply chain, promoting sustainable agricultural practices that mitigate water risks is key for the company's long-term water and business security. PMI is committed to achieving a sustainable management of water resources at the basin level. Thus, PMI is working with all its tobacco suppliers through its Good Agricultural Practices (GAP) program. As part of GAP, PMI engages suppliers to develop and implement water conservation plans that achieve rational use of water resources and incorporate best available irrigation practices at the local level, including efficient irrigation systems such as drip irrigation, timing, and amount of water distributed, based on water use efficiency measurements. PMI rolled out GAP in 2002 and monitors its success on an annual basis.

Baseline year

2007

Start year

2007

End year

2030

Progress

PMI measures progress for this goal on an annual basis, through the use of water related indicators as part of the Good Agricultural Practices (GAP) program. The set of indicators, as well as the specific goals vary within basins, as production conditions are significantly different within PMI's agricultural supply chain. Some of the measured indicators include reductions in water withdrawal rates, number of farmers adopting drip irrigation (or other smart irrigation practices) and other similar metrics. An example of this is the monitoring of farmers' progress on the adoption of sustainable water management practices. PMI monitors adoption rates of drip irrigation practices for tobacco production and, we estimate that our engagement has resulted in 98% of the area used to produce the tobacco purchased in 2020 from the Verona region (Italy) applying drip irrigation systems. PMI aims to continue engaging with local farmers in the region to achieve a 100% adoption of drip irrigation in Verona province by 2030, reaching our threshold of success.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water consumption volumes from manufacturing facilities, including water in and water out.	Other, please specify (ISO 14064-3)	In the frame of the Green House Gas verification, carried out by SGS, we also verified our manufacturing centers water volumes data, both in and out, and this is clearly described in the verification statement issued by SGS.
W8 Targets	Water consumption volumes from manufacturing facilities, including water in and water out.	Other, please specify (ISO 14001)	In the frame of the 'Continuous improvement' principle from ISO 14001, PMI monitors progress from our manufacturing facilities, which is audited by Bureau Veritas.
W8 Targets	Manufacturing facilities AWS certification.	Alliance for Water Stewardship certification	We have become a member of the Alliance for Water Stewardship to better understand how to conserve the watersheds where we operate, and sixteen factories have been already certified against the AWS Standard by the end of 2021. We have committed to certify all our factories by 2025.
W8 Targets	Water consumption volumes from manufacturing facilities, including water in and water out.	Other, please specify (ISO 14064-3)	In the frame of the Green House Gas verification, carried out by SGS, we also verified our manufacturing centers water volumes data, both in and out, and this is clearly described in the verification statement issued by SGS.

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms